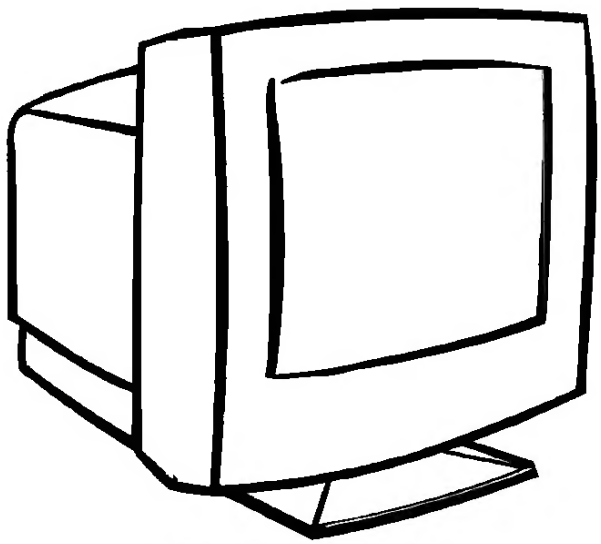
SERVICE GUIDE

COLOR MONITOR

(AF715 Series)



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1. SPECIFICATIONS FOR 7KIr SERIES COLOR MONITOR

1. CRT : 43.2CM(17") 90 Deflection, 29mm Neck, Pure flat 0.25mm Dot Pitch, Non-Glare Screen

2. Viewable image Size: 40.6CM (16") diagonal

3. Display Color: Unlimited Colors

4. External Controls:
Power On/Off, OSD key, Function knob: Contrast, Brightness, H-Size, H-Center, V-Size, V-Center, ZOOM, Pincushion, Trapezoid, Pin-Balance, Parallelogram, Rotation, Moire Reduce,H-Convergence, V- Convergence language select, Recall, Degaussing, Color Temperature.

5. Input Video Signal

	Mode 1	Mode 2	Mode 3	Mode 4
	RGB Analog	RGB Analog	RGB Analog	RGB Analog
Horiz. Sync:	TTL Level	TTL Level	TTL Level	TTL Level
	Negative	Negative	Negative	Positive
Vert. Sync:	TTL Level	TTL Level	TTL Level	TTL Level
	Positive	Negative	Negative	Positive
Horizontal:	640 (H)	720 (H)	640 (H)	800 (H)
Vertical :	480 (V)	400 (V)	480(V)	600 (V)
Fh (kHz):	31.47	31.47	43.3	53.67
Fv (Hz) :	60	70	85	85

	Mode5	Mode 6	Mode7	Mode 8
	RGB Analog	RGB Analog	RGB Analog	RGB Analog
Horiz. Sync:	TTL Level	TTL Level	TTL Level	TTL Level
	Positive	Positive	Positive	Positive
Vert. Sync:	TTL Level	TTL Level	TTL Level	TTL Level
	Positive	Positive	Positive	Positive
Horizontal:	1024 (H)	1280 (H)	1280 (H)	1600 (H)
Vertical :	768 (V)	960 (V)	1024 (V)	1200 (V)
Fh (kHz):	68.6	85.9	91.1	93.8
Fv (Hz) :	85	85	85	75

6. Display Size
Horizontal: 310 mm
Vertical: 232.5 mm

7. Scanning Frequencies
Horizontal: 30KHz ~ 96KHz
Vertical: 50 Hz ~ 160 Hz

8. Factory Preset Timings: 8
User Timings: 20

9. Misconvergence
Center: 0.3 mm Max.
Corner: 0.4 mm Max.

10. Video Bandwidth: 200 MHz

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11. Power Source:
Switching Mode Power Supply
AC 100 ~240V, 50/60Hz Universal Type

12. Operating Temperature: 10 °C to 35°C Ambient

13. Humidity : 10% to 85% Relative, Non-Condensing

14. Weight: 17.0 Kgs(Net), 20.5Kgs(Gross)

15 Dimensions Monitor:
Carton: 570(W) × 530(H) × 540(D) mm
Monitor: 430(W) × 416(H) × 440(D) mm

16. External Connection :
15 Pin D-type Connector AC Power Cord

17. Regulations: UL, CSA, FDA, FCC, TÜV/GS, CE(For Europe Area or other required Area), MPR-II,TCO'99

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2. PRECAUTIONS AND NOTICES

2-1 SAFETY PRECAUTIONS

1. Observe all caution and safety related notes located inside the display cabinet.
2. Operation of the display with the cover removed, may cause a serious shock hazard from the display power supply. Work on the display should not be attempted by anyone who is not thoroughly familiar with precautions necessary when working on high voltage equipment.
3. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. People who are not so equipped should be kept away while handling picture tube. Keep picture tube away from the body while handling.
4. The picture tube is constructed to limit X-RAY radiation to 0.5 mR/HR. For continued protection, use the designated replacement tube only, and adjust the voltages so that the designated maximum rating at the anode will not be exceeded.
5. Symbol "★" means safety relative parts. The use of substitute replacement parts which do not have the same characteristics as specified in the parts list may create shock, fire or explode etc.
6. Symbol "⚠" means X-ray relative parts. Before replacing any of these components please read the parts list in this manual carefully to avoid creating higher anode voltage or x-ray. Especially for sealed controls, such as VR901, VR902, VR401 and FBT screen VR etc, which were sealed by the manufacturer once their optimum position has been set, please don't dismantle them as your likes, otherwise you will break or damage the component. If you need replace the parts with sealed control, please adjust the relative VR to make sure the B+ voltage under 60.5KVdc and well seal it with A+B glue or equivalent, which you can not move away with one screw driver.
7. Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screw heads.
   Test method for current leakage is described as follow.
   (a) Plug the AC line cord directly into rated AC outlet (do not use a line isolation transformer during this check).
   (b) Use an AC voltmeter having 5000 ohms per volt or with more sensitivity in the following manner: Connect a 1500 ohms 10 Watt resistor, paralleled by a 0.15UF, AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts simultaneously. Measure the AC voltage across the combination of 1500 ohms resistor and 0.15UF capacitor.
   (c) Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part.
   (d) Voltage measured must not exceed 0.5 volts RMS. This corresponds to 0.35 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

2-2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Before replacing any of these components read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-RAY radiation or other hazards.

2-3 SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1/2W of metal oxide film resistor) in circuit board, keep the resistor about 10mm (1/2 in) away from circuit board.
3. Keep wires away from high voltage or high temperature components.
4. Keep wires in their original position so as to reduce interference.

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2-4 HIGH VOLTAGE WARNING

Operation of monitor outside of cabinet or with back removed may cause a serious shock hazard. Work on this model should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.
Exercise care when servicing this chassis with power applied. Many B plus and high voltage terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis and picture tube dag when operating chassis.
Certain HV failures can increase X-ray radiation. Monitor should not be operated with HV levels exceeding the specified rating for the chassis type. The maximum operating HV specified for the chassis used in this monitor is

25.0KV ± 0.3KV

with a line voltage of 100/240 VAC. Higher voltage may also increase possibility of failure in HV supply.
It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage or operating supply voltages. No changes should be made to the original design of the monitor. Components shown in the shaded areas on the schematic should be replaced with exact factory replacement parts. The use of unauthorized substitute parts may create a shock, fire or other hazard.
To determine the presence of high voltage, use an accurate, high impedance, HV meter connected between second anode lead and CRT dag grounding device. When servicing the High Voltage System, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead.(AC line cord disconnected from AC power outlet.)
The picture tube used in this monitor employs integral implosion protection. Replace with tube of the same type number for continue safety. Do not lift picture tube by the neck. Handle the picture tube only after discharging the high voltage completely.

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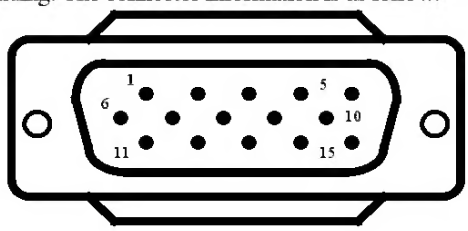
3. OPERATING INSTRUCTIONS

This procedure gives you instructions for installing and using the 7K color display.

1. Position the display on the desired operation and plug the power cord into a convenient AC outlet. Three-wire power cord must be shielded and is provided as a safety precaution as it connects the chassis and cabinet to the electrical conduit ground. If the AC outlet in your location does not have provisions for the grounded type plug, the installer should attach the proper adapter to ensure a safe ground potential.
2. Connect the 15-pin color display shielded signal cable to your signal system device and lock both screws on the connector to ensure firm grounding. The connector information is as follow:



15 - Pin Color Display Signal Cable

PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
I.	RED	9.	5V
2.	GREEN	10.	GND
3.	BLUE	11.	SYNC. GND
4.	GND	12.	SDA
5.	GND	13.	HORIZ. SYNC
6.	GND-R	14.	VERT. SYNC (∗ VCLK)
7.	GND-G	15.	SCL
8.	GND-B		

3. Apply power to the display by turning the power switch to the "ON" position and allow about thirty seconds for display tube warm-up. The Power-On indicator lights when the display is on.
4. With proper signals feed to the display, a pattern or data should appear on the screen, adjust the brightness and contrast to the most pleasing display.
5. This monitor has power saving function following the VESA DPMS. Be sure to connect the signal cable to the PC.
6. If your 7K Series color display requires service, it must be returned with the power cord.

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4. ADJUSTMENT

4-1 ADJUSTMENT CONDITIONS AND PRECAUTIONS

1. Approximately 30 minutes should be allowed for warm up before proceeding.
2. Adjustments should be undertaken only on those necessary elements since most of them have been carefully preset at the factory.

4-2 MAIN ADJUSTMENTS

NO.	FUNCTION			LOCATION	DESIGNATION
1.	HV ADJ			PCB - MAIN	VR703
2.	180V ADJ			PCB - MAIN	VR902
3.	SCREEN ADJ			FLY BACK TRANS	T402
4.	FOCUS ADJ			FLY BACK TRANS	T402
5.	ABL ADJ			PCB - MAIN	VR701
6.	SUB-BRIGHTNESS ADJ			PCB - MAIN	VR702
7.	FUNCTION ADJ	-MENU	2	PCB - MAIN	SW4
		-UP	▶	PCB - MAIN	SW5
		-DOWN	◀	PCB - MAIN	SW6
		-EXIT	1	PCB - MAIN	SW7

4-3 ADJUSTMENT METHOD

1. 180V, Sub-Brightness & HV voltage adjustment:
   A. Chroma-2000 Signal generator or PC equivalent set mode 1, VGA 1024X768 pattern 1.0.
   B. Connect a DC Volt meter between D918 cathode and ground, then adjust VR902 to be 180VDC.
   C. Connect an accurate,high impedance,HV meter between second anode lead and CRT dag grounding device. Then adjust VR703 to be 25.0KVDC.
   D. Connect a DC Volt meter between TP701(G1) and ground, Brightness set to center and contrast set to max. Then adjust VR702 to be -10 VDC.
   E. Connect a 20kΩ resistor in parallel with R403 to increase the HV, the hold down circuit will operate and the display will disappear. Then disconnect this resistor to bring the unit to normal condition.

2. Factory preset Timings Adjustment:
   A. Press MENU Key to show OSD window press Up or Down Key to switch the functional controls.
   B. Press the Up Key to select the "ZOOM" function, then press the MENU Key. While do not release the MENU Key until the OSD window changed to the Factory preset window.
   C. The Factory preset window contains the following functional controls. Select one of the controls. Then press the Up/Down Key to adjust it's value for the optimum picture.
   D. Press MENU Key to Quit the OSD window. Mean while the new setting data will be saved in the memory.
   E. To switches the input signal to the other Timing Mode. Please follow step C ~ D to get the optimum picture.
   F. Select the " ↵ " RETURN function and press the MENU Key, then the Factor Preset window will be returned to the original OSD window.(user's operating condition)
   G. The setting data of the CONTRAST, BRIGHTNESS, PIN-BALANCE, PARALLELOGRAM, ROTATION, COLOR TEMPERATURE are common mode saved in the memory. Don't needed adjust it individual at every timing Mode and save in the memory.
   H ⏮⏭ Model select: for factory only, service engineer can't changed.

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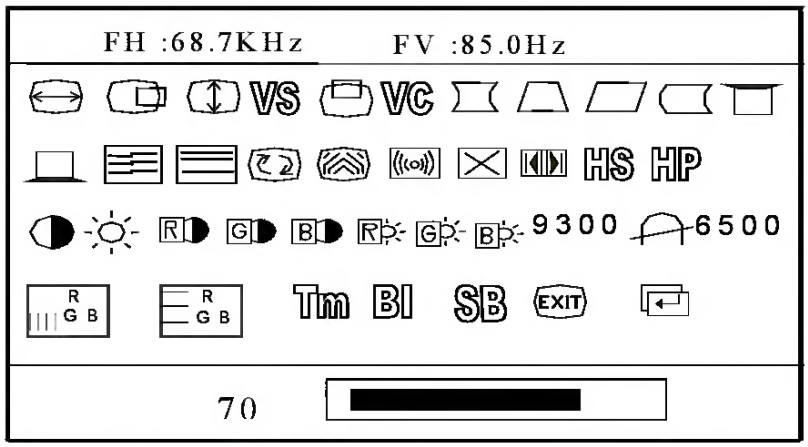

	CONTRAST		H-MOIRE REDUCE
	BRIGHTNESS		V-MOIRE REDUCE(No use)
	H-CENTER		R-GAIN
	H-SIZE		G-GAIN
	V-CENTER		B-GAIN
	V-SIZE		R-BIAS
	ZOOM		G-BIAS
	Top corner		B-BIAS
	Bottom corner	**9300**	COLOR TEMPERATURE
	PINCUSHION	**6500**	COLOR TEMPERATURE
	TRAPEZOID		DEGAUSS
	PIN-BALANCE		OSD EXIT
	PARALLELOGRAM		RETURN
	ROTATION		Vs Linear
Vs	Sub V-size		Vc Linear
Vc	Sub V-center	HS	H-SIZE (NO use)
	H-Convergence	HP	Max H-SIZE
	V-Convergence		Moire Disable
	Exceed Frequency	SB	Super Brightness Quality
TM	Used time	BI	Burn In

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3 White Balance, Luminance adjustment

A Bias (Low Luminance) adjustment

(a) Set mode 5 1024×768 Fh 68 6KHz full white pattern

(b) To make the adjustment condition is under the Factory preset window Same as step 2-C

(c) Warm up more than 30 minutes

(d) Brightness set to center Contrast set to max raster pattern, then adjust FBT screen G2 VR to make Y= 0 18 ± 0 03cd/m^2

(e) Make the setting value of B-Bias and R-Bias to 20DAC, keep the value of G-BIAS to 50DAC, then adjust FBT screen G2 VR and the R B Bias individual to the color temperature x= 260 ± 10, y= 290 ± 10,Y=0 18±0 03cd/m^2

(f) Select OSD function to the 9300°K and 6500°K function individually, then press the MENU Key to make the setting data saved in the memory

B Gain (High light) adjustment

(a) Set mode 5 1024×768 Fh 68 6KHz 1/3 white area(100mmX100mm Window)

(b) Brightness set to 50DAC and set the contrast to max

(c) Adjust G-Gain , B-Gain , R-Gain , to make color temperature x=283 ± 10, y=297 ± 10,Y=140 ±10cd/m^2

C Select OSD function to the 9300°K function, then press the MENU Key to make the setting data saved in the memory

D The adjustment of 6500°K white Balance may follow step B ~ C , with the x=313 ± 10, y=329 ± 10, Y=140 ±10cd/m^2

E Selet "SB" Function to ON

F The adjustment of 9300°K(SBQ) white blance may follow B~C with the x=283±10, y=297±10,Y≥280cd/m^2

G The adjustment of 6500°K (SBQ) white Balance, May follow B~C with the x=313±10,y=329±10，Y≥260cd/m^2

H Select "SB" function to OFF and Exit factory preset model

I Full white luminance

(a) Set mode 2 640×480 Fh 68 6KHz full white pattern

(b) Image Size H 310±4mm V 232 5±4mm

(c) Brightness set to 50 DAC and set the contrast to max

(d) Adjust VR701 to the luminance at 105±5cd/m^2

4 Focus Adjustment

A Set mode5 1024×768 Fh 68 6KHz with character full page

B Adjust brightness to center and contrast to max.

C Then adjust focus VR1 to a fine vertical line

D Adjust focus VR2 to a fine horizontal line

E Repeat step C & D

5 Purity Adjustment

A Be sure that the display is not being exposed to any external magnetic fields

B Ensure that the spacing between the Purity, Convergence, Magnet, (PCM), assembly and the CRT stem is 29mm (See below diagram)

C Produce a complete, red pattern on the display Adjust the purity magnet rings on the PCM assembly to obtain a complete field of the color red This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180'

D Check the complete blue and complete green patterns to observe their respective color purity Make minor adjustments if needed

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RELATIVE PLACEMENT OF TYPICAL COMPONENTS

6 Convergence adjustment

A Produce a magenta crosshatch on the display
B Adjust the focus for the best overall focus on the display
Also adjust the brightness to the desired condition
C Vertical red and blue lines are converged by varying the angle between the two tabs of the 4 pole magnets on the PCM assembly (See above diagrams)
D Horizontal red and blue lines are converged by varying the two tabs together, keeping the angle between them constant
E Produce a white crosshatch pattern on the display
F Vertical green and magenta lines are converged by varying the angle between the two tabs of the 6-pole magnets
G Horizontal green and magenta lines are converged by varying the two tabs together, keeping the angle between them constant

5. CIRCUIT DESCRIPTION

5-1 MICRO CONTROLLER CIRCUIT

MICRO Controller

The IC101 contains a 6502 8-bit CPU core, 256 bytes of RAM, 16K bytes of ROM,14 channel 8 bit PWM D/A converters, 2 channel A/D converters for key detection, one 8 bit pre-loadable base timer, internal H-sync and V-sync signals processor providing mode detection, watch- dog timer preventing system from abnormal operation, and an I^2C bus interface

H/V sync signals processor

The functions of the sync processor include polarity detection, H-SYNC & V-SYNC signals counting, Programmable SYNC signals output, free running signal generator,and composite sync separation Pin41/Pin42 are for the H-SYNC and V-SYNC input, Pin33/Pin34 will output the same signal as input sync signal without delay, and the polarity are setting in the positive When no signal input, the Pin33 will output a 61HZ V-SYNC free run signal The Pin34 will output a 62 5KHz H-SYNC free run signal for the monitor testing use

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On Screen Display Controller

The IC802 on video board is designed for display the built-in characters or fonts onto monitor screen. The display operation is by transforming data and control information from micro controller to RAM through a serial data interface.
Pin2 is used to control the internal oscillator frequency by DC voltage input from external low pass filter (R830, C817, R833) and filter (R832, C818) is used to regulate the appropriate bias current for internal oscillator the resonate at specific dot frequency.
Pin5 is input the horizontal fly back pulse, for PLL generator tracking.
Pin6 is left floating, I^2C bus is enabled. Otherwise the SPI bus is enabled.
Pin7 the external data transfer through this pin to internal display registers and control registers.
Pin8 the clock-input pin is used to synchronize the data transfer.
Pin10 is input the vertical flyback pulse for synchronizing the vertical position.
Pin12 is output a blanking signal to cut off external R G B signals of VGA while this chip is displaying characters or windows.
Pin13, Pin14, Pin15 is used to output the OSD (B G R) video signal.

5-2 DEFLECTION CIRCUIT

The deflection circuit is achieved by a high performance and efficient solution IC401 (TDA4856) for this monitor. The concept is fully DC controllable and can be used in applications with a micro-controller solutions.
The TDA 4856 provides sync. Processing with full auto sync. capability, a flexible SMPS block and an extensive set of geometry control facilities. Further the IC generates the drive waveforms for DC coupled vertical boosters to the TDA 4887PS [ref Page-28]

Horizontal Oscillator

The oscillator is of the relaxation type and requires a capacitor of 10nF C413 at pin 29. The maximum oscillator frequency is determined by a resistor R426 form pin 28 to ground. A resistor R425 from pin27 to pin28 defines the frequency range.

PLL 1 Phase Detector

The phase detector is a standard one using switched current sources. It compares the middle of H-sync. with a fixed point on the oscillator saw-tooth voltage. The PLL loop filter C411, R424, C412 is connected to Pin26.

PLL2 Phase Detector

This phase detector is similar to the PLL1 detector and compares the line flyback pulse at pin 1 with the oscillator saw-tooth voltage. The PLL2 detector thus compensates for the delay in the external H-deflection circuit by adjusting the phase of the HDRV output pulses. The phase between H-flyback and H-sync can be controlled at pin30.

X-ray Protection

The X-ray protection input pin2 provides a voltage detector with a precise threshold. If the voltage exceeds this threshold for a certain time, an internal latch switches the whole IC into protection mode. In this mode several pins are forced into defined states.
Pin8 (HDRV) is floating.
Pin6 (BDRV) is floating.
Pin12, 13 (VOUT 1, 2) are floating.
Pin16 (CLBL) provides a continuous blanking signal.

Vertical Oscillator

The vertical free –running frequency is determined by the resistor R602 at pin23 and capacitor C602 at pin24. Usually the free-running frequency should be lower than the minimum trigger frequency.

5-3 PFC CIRCUIT

Between rectifier and loading, it is connected a DC-DC switch transformer. Through input current Ii wave following AC input sinusoid voltage wave, Ii may approach sine wave, and input THD may less than 5%,power factor may improve more 0.9. IC905 is used for power factor correction. Q910 is DC-DC power switch transistor, and R955、R956 is used as divider.

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5-4 TRANSISTOR & DIODE CIRCUIT

LOCATION	FUNCTION AL DESCRIPTION
D101	For C103 Discharge
Q101	For LED Indicator Control
D411	Speed up for Q410
D412	Damping Diode
Q405	HDRV Mute Control
Q409	Horizontal Driver
Q410	Horizontal Out Put
Q413	Horizontal Linearity Correction Control
Q415~ Q419	Horizontal S-Correction Control
Q429~ Q433	Horizontal S-Correction Control
D705	Buffer Diode
D701	Rectifier for 250V Supply
D702	Protection Diode for Q701
D703,D704	Rectifier for -200V Supply
Q707	Picture Mute Control AMP
Q705, Q706	Brightness Control CKT
Q701	Vertical Dynamic Focus Control AMP
BD901	Bridge Rectifier for AC Source
D909	Rectifier for Start Power Supply
D907	Clip Diode for Snubber CKT
D906	IC901 VCC Supply
D910	Speed UP for Q901
D911	Synchronous Trigger for Power Supply
D912,D913,D918	Rectifier for 180V Output Voltage Supply
D916,D917,D924	Rectifier for 6 5V,16V,-10V Output Voltage Supply
D914 , D901	Rectifier for 80V Output Voltage Supply
D409, D410	Raster Position Control
D905	Clip Diode for Snuffer Pulse
ZD901	Protection Diode
ZD902	Protection Diode
ZD903	Protection Diode

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LOCATION	FUNCTION AL DESCRIPTION
Q901	MOS FET for Switching Power Control
Q904	Start up CKT for IC901
Q912, Q913	To Turn 6 3V Supply Off when the Off Mode is Required
Q908, Q909	To Turn 16V Supply Off when the Off or Suspend Mode is Required
Q408	MOS FET for B+ Control
Q406, Q407	Push Pull Driver for Q408
D856 ~ D858	DC Restoration for CRT Bias Adjustment
D850 , D852,D854	Protection Diode for Q801, Q802, Q803
Q850 ~ Q852	DC Restoration for CRT Bias Adjustment

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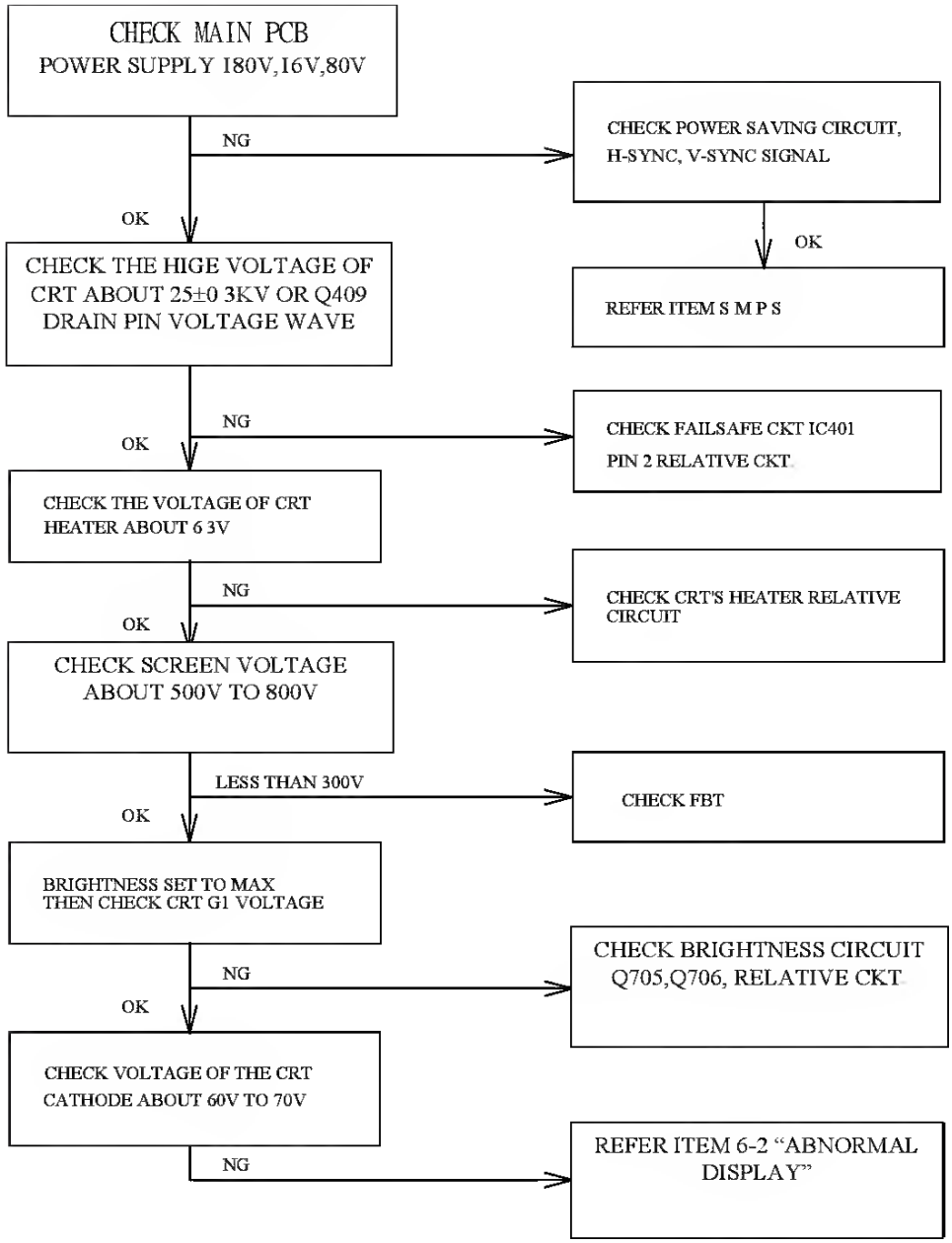
6.TROUBLE SHOOTING CHART

6-1 NO RASTER, CRT RELATIVE CIRCUIT PROBLEMS



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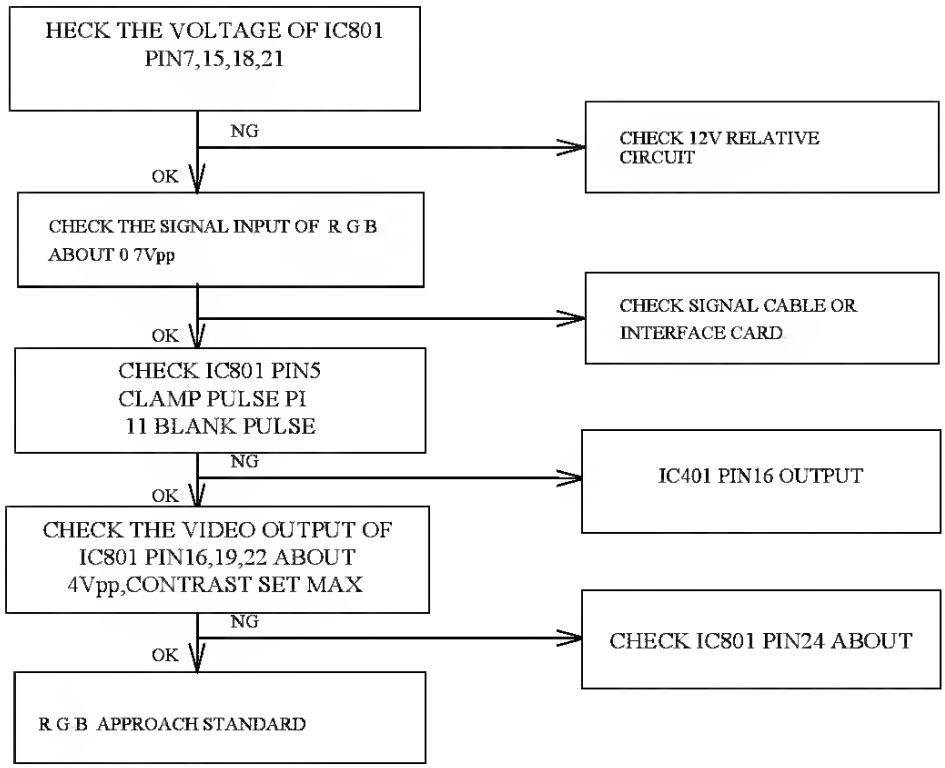
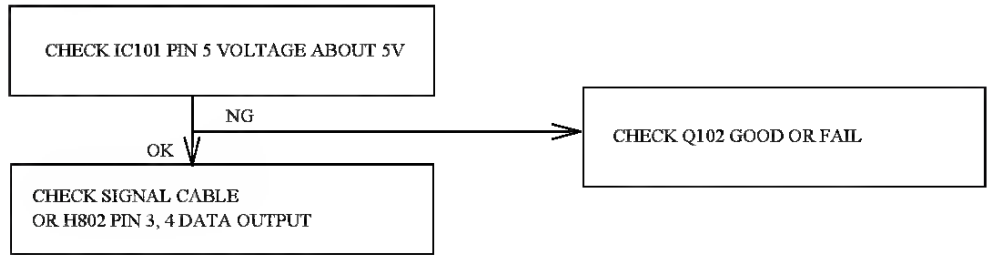
2.ABNORMAL VIDEO LEVEL ON SCREEN


HECK THE VOLTAGE OF IC801 PIN7,15,18,21
NG
CHECK 12V RELATIVE CIRCUIT
OK
CHECK THE SIGNAL INPUT OF R G B ABOUT 0 7Vpp
CHECK SIGNAL CABLE OR INTERFACE CARD
OK
CHECK IC801 PIN5 CLAMP PULSE PI 11 BLANK PULSE
NG
IC401 PIN16 OUTPUT
OK
CHECK THE VIDEO OUTPUT OF IC801 PIN16,19,22 ABOUT 4Vpp,CONTRAST SET MAX
NG
CHECK IC801 PIN24 ABOUT
OK
R G B APPROACH STANDARD

3. ABNORMAL DDC (PLUG & PLAY)



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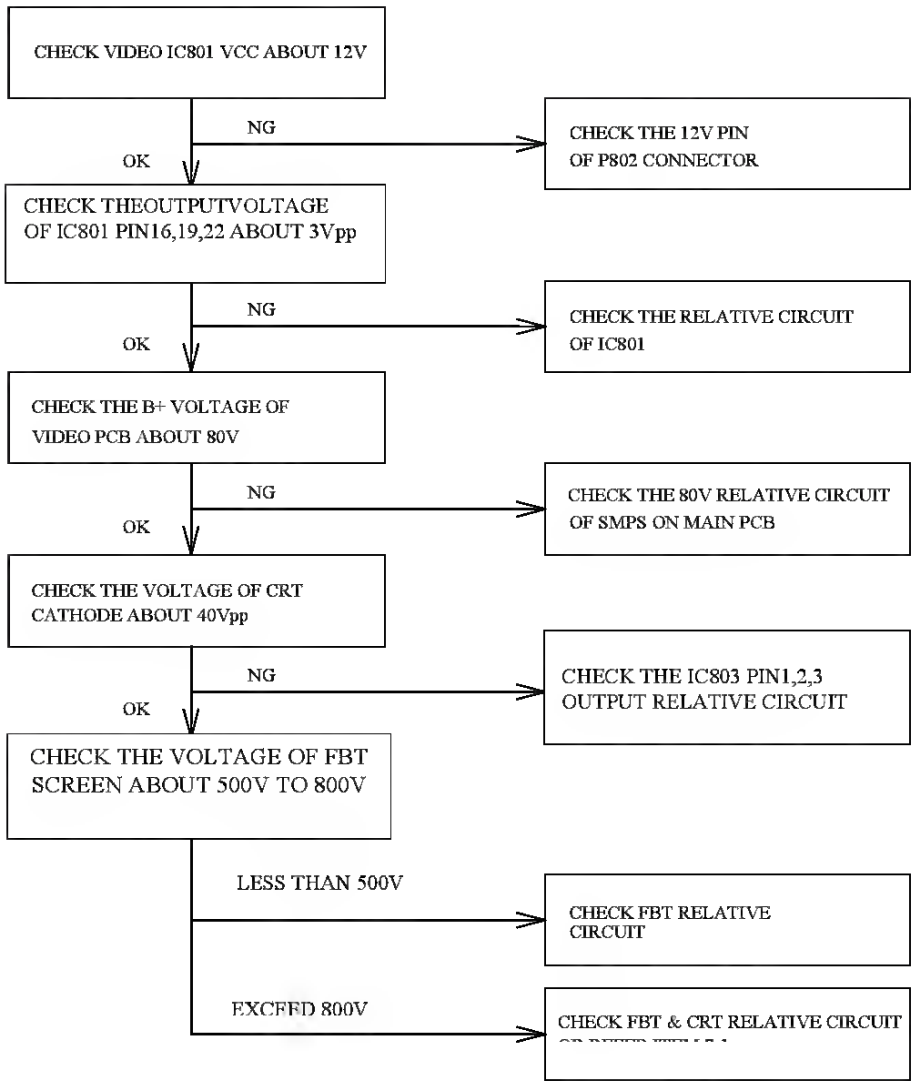
6-2 ABNORMAL DISPLAY

1.NO SIGNAL ON SCREEN


CHECK VIDEO IC801 VCC ABOUT 12V
NG
CHECK THE 12V PIN OF P802 CONNECTOR
OK
CHECK THEOUTPUTVOLTAGE OF IC801 PIN16,19,22 ABOUT 3Vpp
NG
CHECK THE RELATIVE CIRCUIT OF IC801
OK
CHECK THE B+ VOLTAGE OF VIDEO PCB ABOUT 80V
NG
CHECK THE 80V RELATIVE CIRCUIT OF SMPS ON MAIN PCB
OK
CHECK THE VOLTAGE OF CRT CATHODE ABOUT 40Vpp
NG
CHECK THE IC803 PIN1,2,3 OUTPUT RELATIVE CIRCUIT
OK
CHECK THE VOLTAGE OF FBT SCREEN ABOUT 500V TO 800V
LESS THAN 500V
CHECK FBT RELATIVE CIRCUIT
EXCEED 800V
CHECK FBT & CRT RELATIVE CIRCUIT

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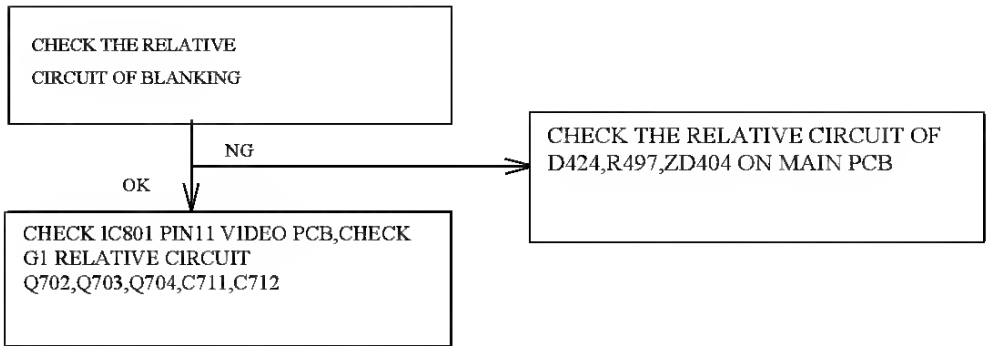
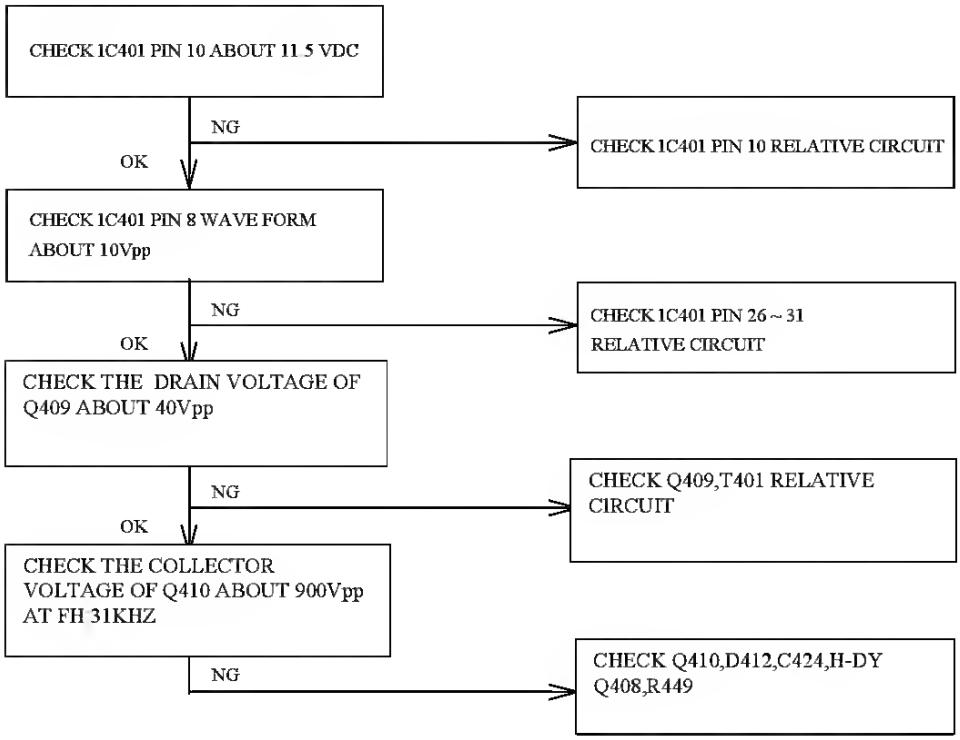
6-3 NO BLANKING



6-4 HOR./OSC/DEF/HV CIRCUIT FAULT

1. NO RASTER (DISCONNECT WITH SIGNAL CABLE)



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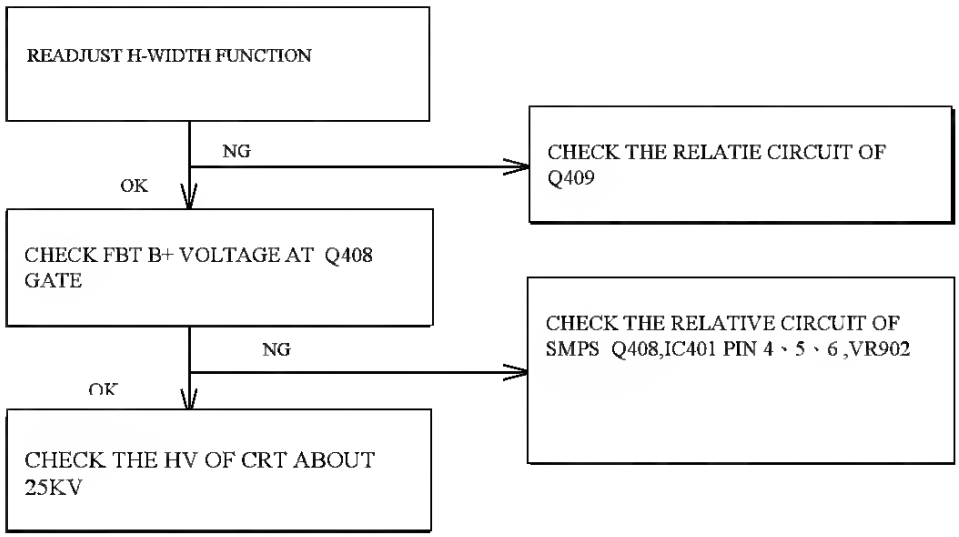
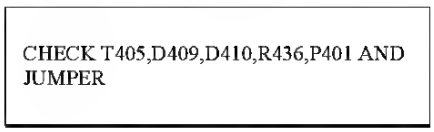
6-5 ABNORMAL HORIZONTAL DEFLECTION

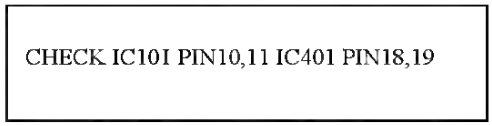
1. ABNORMAL HORIZONTAL WIDTH OF VIDEO


READJUST H-WIDTH FUNCTION
NG
CHECK THE RELATIE CIRCUIT OF Q409
OK
CHECK FBT B+ VOLTAGE AT Q408 GATE
NG
CHECK THE RELATIVE CIRCUIT OF SMPS Q408,IC401 PIN 4、5、6 ,VR902
OK
CHECK THE HV OF CRT ABOUT 25KV

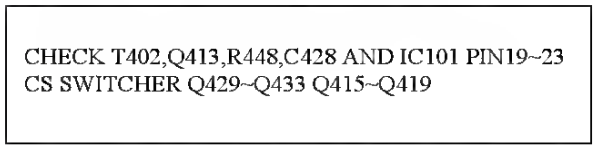
2. ABNORMAL HORIZONTAL RASTER CENTER



3. ABNORMAL HORIZONTAL VIDEO CENTER



4. ABNORMAL HORIZONTAL LINEARITY



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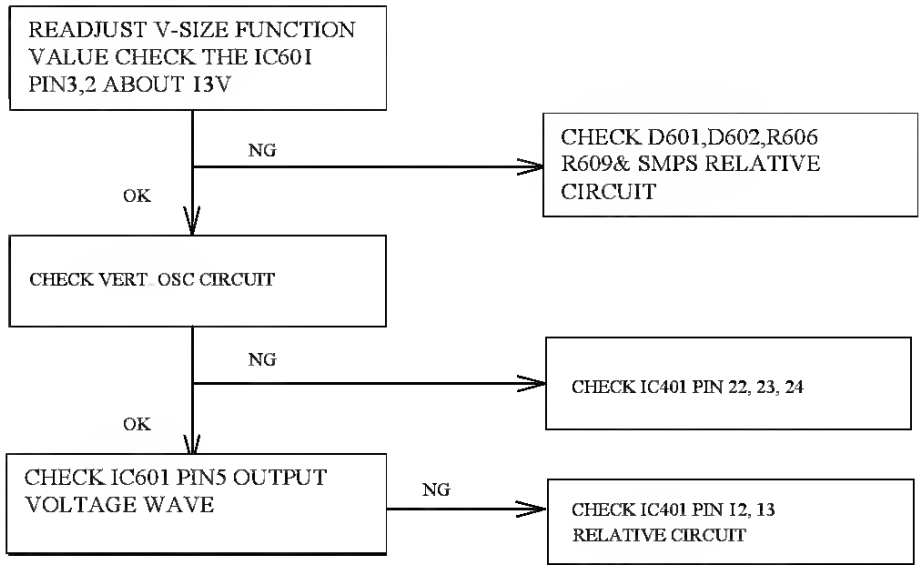
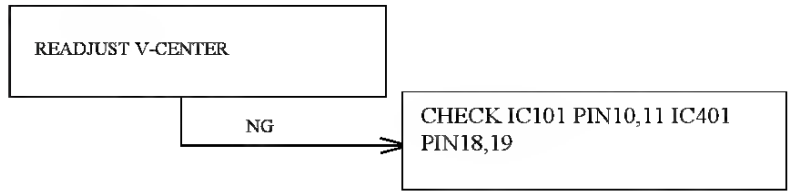
6-6 ABNORMAL VERTICAL SCANNING

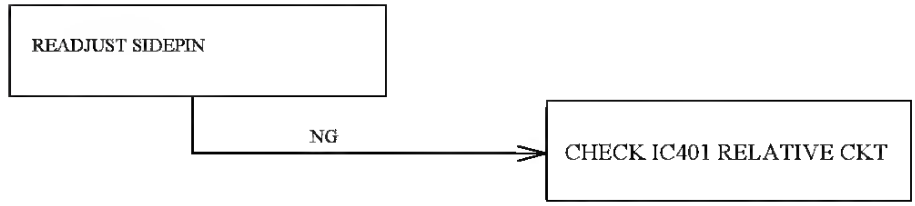
1. ABNORMAL VERTICAL SIZE



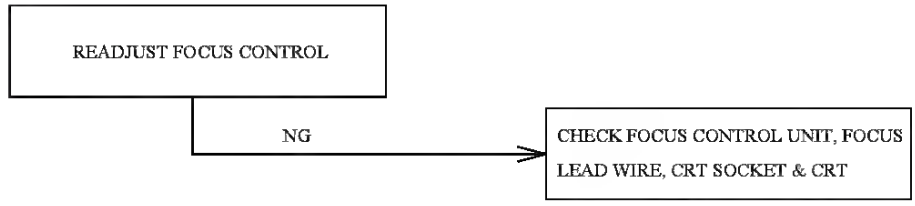
2. VERTICAL CENTER



6-7 SIDE-PIN CUSHION DISTORTION



6-8 POOR FOCUS



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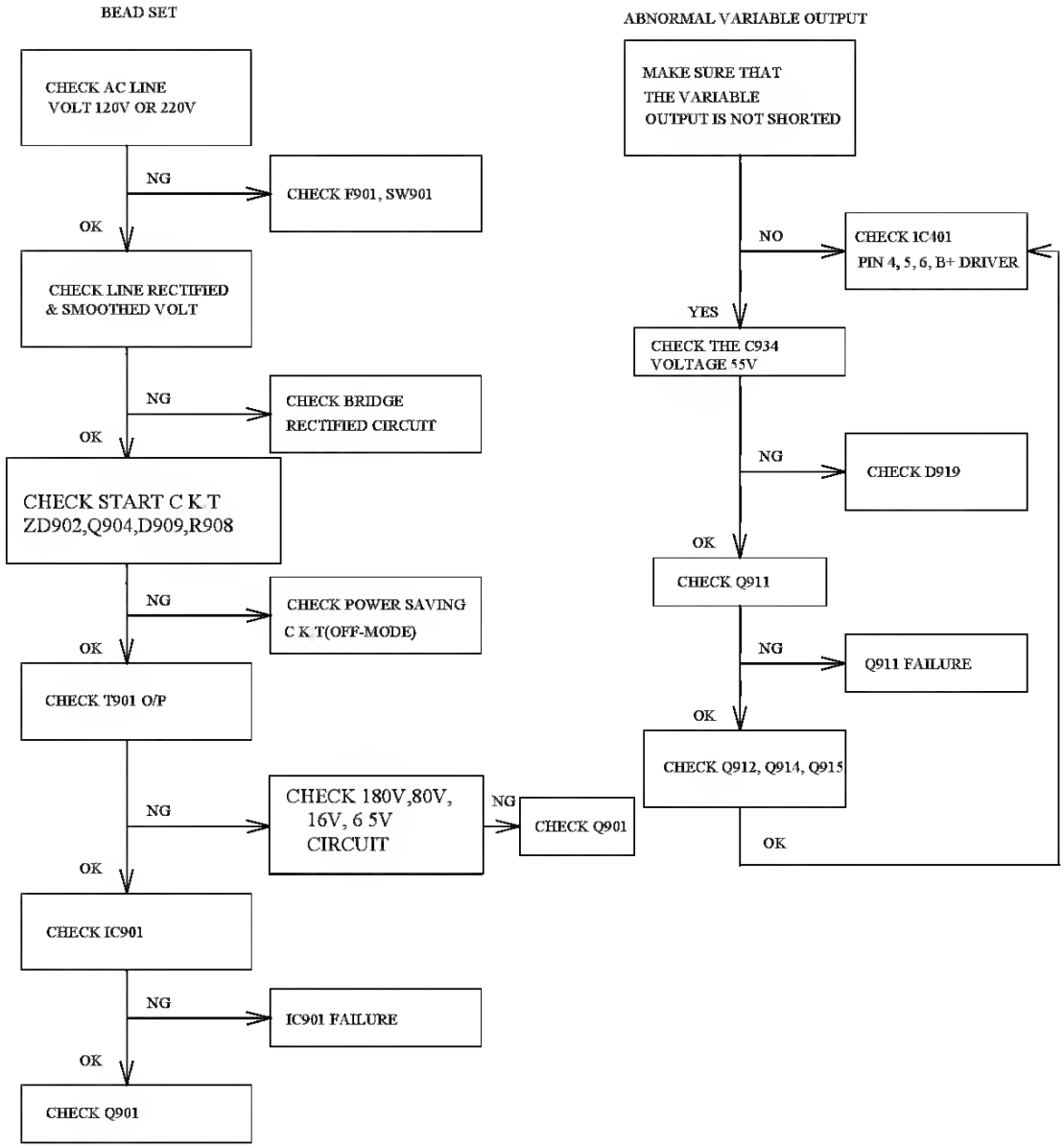
6-10 POWER SUPPLY TROUBLE SHOOTING CHART

BEFORE CHECK SW REG PLEASE REFER TO THE POWER SUPPLY BLOCK DIAGRAM
POWER SUPPLY OUTPUT (A) CONSTANT OUTPUT 6 5V, 16V, 80V, 180 V, -10V



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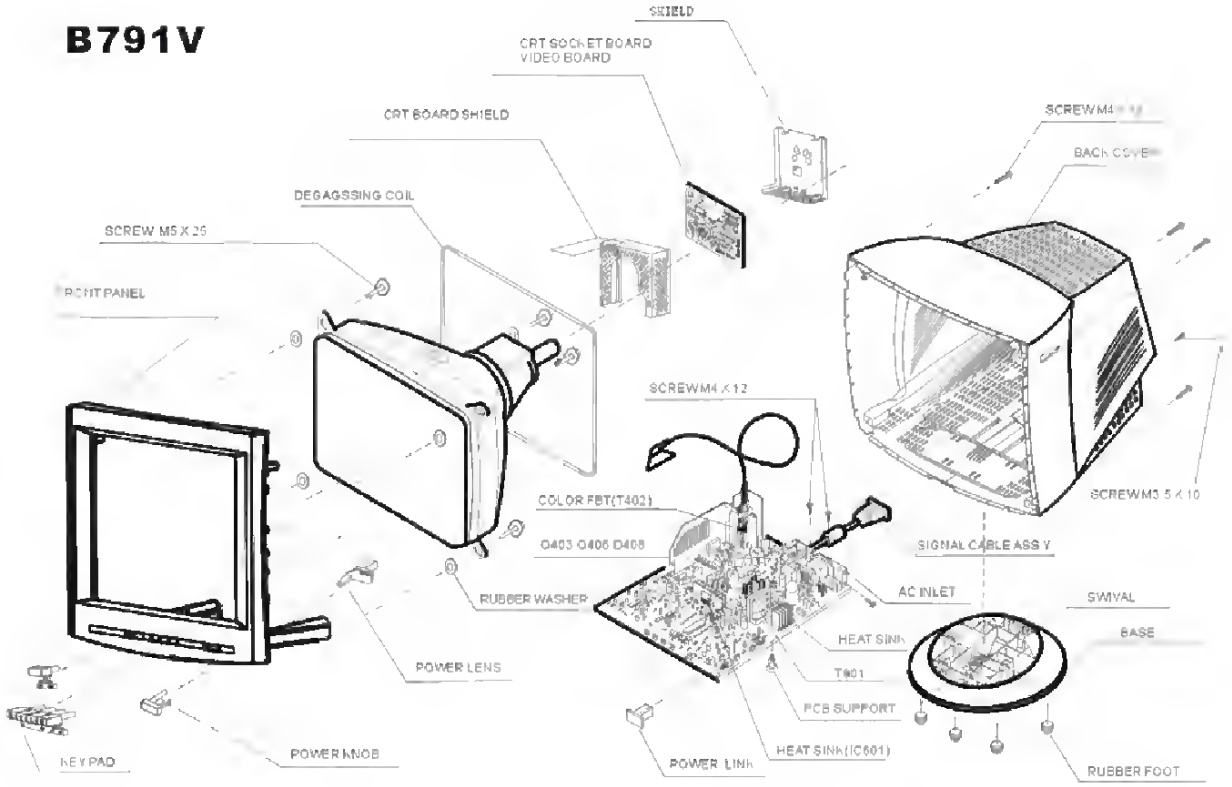
7. MECHANICAL OF CABINET FRONT DIS-ASSEMBLY



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8. PARTS LIST OF CABINET

LOCATION	B793ZSNWAEN5L P993Z-3 CMB793Z5NAYL	SPECIFICATION CHASSIS FOR B793Z-5L AC	REMARK
	1A 503503 47	SCREW FOR CRT	
	5A 38 8	RUBBER WASHER	
	7A 1 4 25	WOOD PALLET	
	7A 1 4 26	WOOD PALLET	
	11A 112500	WIRE MOUNT	
	11A 115 1	FBT CLIP	
	12A 385 1	RUBBER FOOT	
	19A 403 7	STEEL	
	33A4020 Y A	S C CAP	
	33A4624 CA T	POWER KNOB	
	33A4625 1	POWER LENS	
	33A4626 CA T	KEY PAD	
	33A6911 1	CRT SUPPORT	
	34A 739 CA 1T	BACK COVER	
★	34A 741 CA B	BASE	
	34A 824 CA B	SWIVEL	
	34A1168ACA T	FRONT PANEL	
	40A 154501 I	HI-POT GND LABEL FOR MO	
	40A 459687 1A	CARTON LABEL	
	40A 581 26704	PAEPR FOR CARTON/PALLET	
	40A 58162433A	TCO03 LABEL	
	40A2064786 2A	ID LABEL	
	41A 68508 A	CARD	
	41A 68786 2A	WARRANTY BOCKLET	
	41A 68786 3A	TCO03 CARD	
	41A 753786 1A	MANUAL	
	44A3231505	ELECTRIC COTTON	
	44A6785 1	EPS CUSHION	
	44A6785 2	EPS CUSHION	
	44A6785786 1A	CARTON	
	44A9003210	Protect Corner Board	
	45A 76 28 RN	PE BAG FOR MANUAL	
	45A 77500	BARCODE RIBBON	
	45A 77501	BARCODE RIBBON	
	45A 88 7 RN	Monitor PE BAG	
	71A 100504 T	CORE	
	85A6027505	SHIELD CASE	
	85A6028502	SHIELD CASE	
★	89A404C15N YH	POWER CORD	
	95A 91205670	WIRE	
	95A8013 2	PIN	
	B1A1035 10128	SCREW 3 5X10	
	Q1A 340 16128	SCREW	
★	750A1697504 JA	0 35*90Ts Deg coil	
	750A57011AV	CPT17"0 25TCO HB FLAT C	
	750A57452AV	LG 17"0 25 TCO HB FLAT	

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PARTS LIST OF CHAS

LOCATION	CMB793Z5NAYL	SPECIFICATION	REMARK
	AMB793Z5NAYL	MAIN BOARD B793Z-5L ACE	
	CRB793Z5NAYL	CRT BOARD B793Z-5L ACER	
	1A 421 4128	SCREW	
	9A 203 9	PIN	NR901 USE
	11A6033 1	PCB SUPPORT	
	15A5640 1 A	AL GND LUG	
	40A 581 26702	FAIL-SAFE LABEL	
	40A 581624 2B	CHASSIS LABEL	
	71A 100 9	FERRIRE CORE 28.5*17.5*	
	87A 201 9	SKT IC 8P	
	87A 201 14	42 Pin IC SOCKET	
	89A174D2DM GG	SIGNAL CABLE	
	B1A1040 I0128	SCREW 4*10	MTG HOT
	D1A1140 7128	SCREW 4X7(FOR AC)	
	M1A1140 6128	SCREW	MTG 15A5659
	705A791UC87 01	AC IN SOCKET	
	705A793SC5601A	IC901 ASS'Y	
	705A992PC9303A	DB901 ASS'Y	
	705A993SC56 01	IC601 ASS'Y	
	705A993SC57 02	Q403/Q405/Q911/D408 ASS	
	705A993ZAC2 01	AC2 ASS'Y	
	705A993ZC56 01	IC903 ASS'Y	
	705A993ZC57 01	Q420 ASS'Y	
	705A993ZC93 01	D921 ASS'Y	
	750A570I1AVP7T	I7" CPT TCO CRT ASS'Y	
	750A57452AVP7T	17" LG CRT ASS'Y	
	71A 100 8	FERRITE CORE 12*25*15	Close to CRPC Board
	85A 588 1	IRON SLICE	On IC401
(SW102)	77A 602 1 CJ	TACT SWITCH TSVB-2	
(SW103)	77A 602 1 CJ	TACT SWITCH TSVB-2	
(SW104)	77A 602 1 CJ	TACT SWITCH TSVB-2	
(SW105)	77A 602 1 CJ	TACT SWITCH TSVB-2	
AG	95A 900510	GROUND WIRE	
C411	67A 309331 3T	330UF +-20% 16V	
C414	67A 305220 9T	22UF +-20% 100V	
C415	65A517K222 IA6213	2200PF Z5F 500V I0%	
C428	63A210J1227CC	MPP 1 2nF/I 6KV +-5%	
C430	65A 2K331 5A6921	330 PF 2KV	
C431	64A100J225 59	2 2UF/100V MEF	
C432	67A 215470 12	47UF +-20% 250V	
C480	95A 90 23	TIN COATED	
C483	67A 309470 3	47UF +-20% 16V	
C607	67A 30522I 6	220UF +-20% 35V	
C608	67A 305102 4	1000UF +-20% 25V	
C612	67A 305102 3	I000 UF +-20% 16V	
C703	67A 305109 15	1UF +-20% 450V	
C713	67A305W100 I2	10UF 250V	
C716	67A 305220 7T	22UF +-20% 50V	
C719	64A178J754 1A	0 75U I00V	
★ C900	63A 107224 5S	X CAP 0 22U/250V	
★ C901	63A107K474 U	CAP SAFETY 0 47U 20% AC	
C906	63A210J4733CC	0 047U 400V	

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	LOCATION	CMB793Z5NAYL	SPECIFICATION	REMARK
★	C907	67A 3022115D	220UF +-20% 450V HEC	
	C912	65A517M103 3A6213	0 01uF + -20% Z5U 500V	
	C917	67A 305102 3	1000 UF +-20% 16V	
	C920	63A210J3344FC	0 33UF 630V	
	C934	67A 215391GFK	390UF +-20% 80V ELITE	
	C936	67A 305102 6	1000UF +-20% 35V	
	C937	67A 305102 3	1000 UF +-20% 16V	
	C939	67A 305102 3	1000 UF +-20% 16V	
	C960	65A305M3322B2	3300PF 250VAC/400VAC	
★	C960	65A305M3322BH	Y2 3300PF +-20% 250VAC/	
	C961	65A305M3322B2	3300PF 250VAC/400VAC	
	C962	65A305M4722B2	4700PF +-20% 400VAC ACF	
	CF418	71A 55 2	FERRITE BEAD 6 5*5*1 7	For one end of C418(close to T401)
	CF428	71A 55 2	FERRITE BEAD 6 5*5*1 7	For one end of C428(close to P402)
	CF438	71A 55 2	FERRITE BEAD 6 5*5*1 7	For one end of C438(close to D406)
	CF920	71A 55 2	FERRITE BEAD 6 5*5*1 7	
	CN902	33A3074 1	2P PLUG	
	D907	93A1100 1A	BYV26E/PHILIPS	
@	D908	93A3060500	RG4A SANKEN	
	D912	93A3020 8T	RG-4Z	
	D919	93A1060 652T	F R D BYV26C	
	D922	93A3020 8T	RG-4Z	
	D923	93A3020 8T	RG-4Z	
	D925	93A3040 8T	RG-4	
	DF908	71A 55 2	FERRITE BEAD 6 5*5*1 7	
	DF912	71A 55 2	FERRITE BEAD 6 5*5*1 7	
	DF919	71A 55 2	FERRITE BEAD 6 5*5*1 7	
	DF922	71A 55 2	FERRITE BEAD 6 5*5*1 7	For Cathode of D922
	DF923	71A 55 2	FERRITE BEAD 6 5*5*1 7	
@	DF925	71A 55 2	FERRITE BEAD 6 5*5*1 7	Close to Cathode
	F901	84A 33 10	FUSE CLIP	
	F901	84A 41 4	FUSE 4A 250V LF-215 004	
	GND	95A 90 23	TIN COATED	For X101
	GND2	9A 203 8	BRASS PIN	
	GND3	9A 203 8	BRASS PIN	
	H802	95A8014 14 5	HARNESS	
@	IC101	56A1125107 X	NT68F65	
	IC102	56A1133513	AT24C08-10PI-2 7	
	IC401	56A 552 5	IC UPC1888ECT	
@	IC902	56A 139 3	PC123FY2 BY SHARP	
	IC906	56A 139 3	PC123FY2 BY SHARP	
	J003	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
	J059	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
	J10-13	73A 54100 5T	10UH 5%	FOR IC104 P10,P13
@	L401	73A 147121 T	LINEARITY COIL	
	L402	73A 253123 TA	CHOKE COIL	
@	L404	73A 253122 S	COIL	
★	L901	73A 174 7 N	LINE FILTER	
@	L902	73A 174 2 LA	25mH LINE FILTER	
	LED4	81A 11 7 GP	GP32052CE/DIY-ZY	
	MGND4	95A 205 30102	UL1015#18 TOP BLK L 10"	
	NR602	61A 60210152T	CFR 100 OHM+-5% 1/6W	

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	LOCATION	CMB793Z5NAYL	SPECIFICATION	REMARK
★	NR901	61A 58 8 L	NTCR15OHM+-20%2 5A UPPE	
	P106	33A3278 7D	WAFER*PLUG	Insert on the contrary
	P402	33A3192 4	4P PLUG	
	P901	33A8009 2	2 PIN MIN JUMOER	
	P903	33A8009 3	3 PIN PLUG	
★	PR901	61A 52 27 4G	PTCR 9OHM+-20% 220V GAO	
	Q402	57A 734 1	BSN254A/PHILIPS	
	Q412	57A 600 14	CEPF630 BY CET	
	Q417	57A 600 14	CEPF630 BY CET	
	R426	61A153M561 59	MOFR 560 OHM+-5% 3W	
	R427	61A152M220 64	MOFR 22 OHM+-5% 2W	
	R428	61A155M918 61	MOFR 0 91 OHM +-5% 5W	
	R429	61A 208820 64	MOFR 82 OHM +-5% 1W	
	R430	61A153M561 59	MOFR 560 OHM+-5% 3W	
	R451	61A152M820 64	MOFR 82 OHM+-5% 2W	
	R456	61A153M101 59	MOFR 100 OHM +-5% 3W	
	R632	61A152M229 64	MOFR 2 2 OHM +-5% 2W	
	R635	61A 208229 64	MOFR 2 2 OHM +-5% 1W	
	R712	95A 90 23	TIN COATED	
	R723	61A152M121 64	MOFR 120 OHM+-5% 2W	
	R743	61A152M101 64	MOFR 100OHM+-5% 2W	
	R914	61A153M333 59	MOFR 33K OHM +-5% 3W	
	R920	61A152M188 64	MOFR 0 18 OHM 2W+-5%	
	R964	61A152M759 64	MOFR 7 5 OHM +-5% 2W	
	R968	61A152M759 64	MOFR 7 5 OHM +-5% 2W	
	R979	61A153M181 59	MOFR 180 OHM +-5% 3W	
	RC716	61A 60210352T	CFR 10K OHM+-5% 1/6W	FOR Cathode of C716
★	RY401	77A 260 5 2W	RELAY OSA-SS-212DM5	
	RY901	77A 260 5 2W	RELAY OSA-SS-212DM5	
	SG701	62A 10 16 J	SPARK GAP 1KV +500-100V	
★	SW901	77A411A 2 S	PUSH SWITCH	
	T401	79A 167118 NA	DRIVE TRANSFORMER	
	T701	79A 167112 HA	Driver Transformer	
	T901	80A 793 1 LS	X'FMR BY LI TAT	
@	T902	73A 174 18 L	LINE FILTER 1 8UH MIN	
	T903	79A 167120 H	DRIVER X'FMR	
	T904	73A 253135 L	CHOKE COIL	
	TP701	9A 211 2	PIN 1 2X15MM	
	TP702	9A 211 2	PIN 1 2X15MM	
	VR701	75A 335223	CFVR 22K OHM +-20%	
	VR702	75A 335204	CFVR 200K OHM +-20%	
	VR703	75A 335104	CFVR 100K OHM +-20%	
	VR902	75A 334303	CFVR 30K OHM +-20%	
@	X101	93A 22 43	RESONATOR 12 0MHZ	

PARTS LIST OF MAIN PC BOARD

LOCATION	AMB793Z5NAYL	SPECIFICATION	REMARK
	6A 31 4	BRASS	T402,T901,PR901
	6A 31500	EYELET	CN901,C907
	6A 31501	BRASS	Q904,Q403
	6A 31502	BRASS	T401,C418,C419

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		95A 90 23	TIN COATED	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
		715A1027 1	CMPC	
	(J201)	95A 90 23	TIN COATED	
	(R103)	61A 60239252T	CFR 3 9K OHM+-5% 1/6W	
	(R104)	61A 60268252T	CFR 6 8K OHM+-5% 1/6W	
@	C101	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C102	67A 309101 3T	100UF +-20% 16V	
	C103	67A 309470 4T	47UF +-20% 25V	
	C104	65A 44212013T	12PF J NPO 50V	
	C106	65A 444472 5T	4700 PF 10% 50V Y5P	
	C109	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C110	65A 444102 5T	1000 PF 10% 50V Y5P	
	C111	67A 309100 7T	10UF +-20% 50V	
	C112	67A 309100 7T	10UF +-20% 50V	
	C113	67A 309100 7T	10UF +-20% 50V	
@	C121	67A 309330 3T	33UF +-20% 16V	
	C130	65A 444103 5T	0 01 UF 10% 50V Y5P	
	C131	65A 444103 5T	0 01 UF 10% 50V Y5P	
	C207	65A 444101 5T	100 PF 10% 50V Y5P	
	C401	67A 309109 7T	1 0UF +-20% 50V	
	C402	64A700J1020AT	PEN 0 001UF/50V +-5%	
	C403	64A 45G3911AT	390PF 100V +-2%	
	C404	67A 309109 7T	1 0UF +-20% 50V	
	C405	67A 70109 9T	1UF +-20% 100V	
	C406	64A700J3330AT	0 033UF 63V +-5%	
	C407	64A176J152 1T	1500PF 100V	
	C408	64A176J104 2T	1UF +-5% 250V	
	C409	67A 309479 7T	4 7UF +-20% 50V	
	C410	65A 442470 9T	47pF/50V SL	
	C412	65A 444101 5T	100 PF 10% 50V Y5P	
	C413	67A 309109 7T	1 0UF +-20% 50V	
	C416	64A176J103 1T	0 01UF 5% 100V	
	C417	64A701J1540AT	0 15UF 50V +-5%	
	C420	64A178J223 1T	CL21X 0 022UF 100V +-5%	
	C421	65A 444102 5T	1000 PF 10% 50V Y5P	
	C422	65A 444101 5T	100 PF 10% 50V Y5P	
@	C423	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C424	67A 309100 7T	10UF +-20% 50V	
	C426	65A 444101 5T	100 PF 10% 50V Y5P	
	C427	67A 70229 9T	2 2UF +-20% 100V	
	C433	64A701J2240AT	0 22uF/50V +-5%	
	C434	67A 309109 7T	1 0UF +-20% 50V	
	C435	65A 444102 5T	1000 PF 10% 50V Y5P	
	C436	67A 305479 7T	4 7UF +-20% 50V	
	C437	67A 309109 7T	1 0UF +-20% 50V	
	C440	67A 305229 7T	2 2UF +-20% 50V	
	C441	67A 309109 7T	1 0UF +-20% 50V	
	C442	67A 309100 7T	10UF +-20% 50V	
	C443	65A517K472 1T6213	4700PF/500V	
	C444	65A 44233113T	330PF +-5% NPO 50V	
	C445	64A176J103 1T	0 01UF 5% 100V	
@	C446	65A 44212113T	120PF 5% NPO 50V	
	C448	65A 444101 5T	100 PF 10% 50V Y5P	
	C451	65A 444102 5T	1000 PF 10% 50V Y5P	
@	C452	67A 309330 3T	33UF +-20% 16V	

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	C454	67A 305109 7T	1UF +-20% 50V	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	C455	67A 309109 7T	1 0UF +-20% 50V	
	C457	65A 44447113T	470PF +-10% Z5P 50V	
@	C459	65A 444101 5T	100 PF 10% 50V Y5P	
	C461	67A 309479 7T	4 7UF +-20% 50V	
	C463	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C465	67A 30947910T	4 7UF +-20% 160V	
	C467	67A 305100 9T	10UF +-20% 100V	
	C468	65A 44210113T	100PF +-5% NPO 50V	
	C469	67A 309109 7T	1 0UF +-20% 50V	
	C471	67A 309109 7T	1 0UF +-20% 50V	
	C481	67A 309101 4T	100UF +-20% 25V	
	C601	64A176J103 1T	0 01UF 5% 100V	
@	C602	64A176J102 1T	001UF +-5% 100V	
	C603	67A 309330 3T	33UF +-20% 16V	
	C604	64A 46J3330AT	0 033UF 50V	
	C605	65A 44447113T	470PF +-10% Z5P 50V	
	C606	65A 444101 5T	100 PF 10% 50V Y5P	
	C610	67A 309109 7T	1 0UF +-20% 50V	
	C611	64A176J224 1T	0 22UF +-5% 100V	
	C614	64A178J224 1T	C121X 0 22UF 100V +-5%	
	C616	65A 444102 5T	1000 PF 10% 50V Y5P	
	C701	67A 309100 7T	10UF +-20% 50V	
	C702	65A 1K471 2T6052	470PF/1KV Y5P+-10%	
@	C704	67A 309100 7T	10UF +-20% 50V	
	C705	65A 444103 5T	0 01 UF 10% 50V Y5P	
	C707	64A176J104 2T	1UF +-5% 250V	
	C708	67A 309100 7T	10UF +-20% 50V	
	C710	67A 70478 9T	0 47UF +-20% 100V	
	C711	65A 444102 5T	1000 PF 10% 50V Y5P	
@	C714	64A178J153 1T	MPE 0 015UF, 100V +-5%	
	C730	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C731	65A 1K471 2T6052	470PF/1KV Y5P+-10%	
	C732	65A 1K471 2T6052	470PF/1KV Y5P+-10%	
@	C909	67A 309470 7T	47UF +-20% 50V	
	C910	65A 442681 5T	680PF 50V	
	C911	67A 309101 3T	100UF +-20% 16V	
	C913	67A 309109 7T	1 0UF +-20% 50V	
	C914	67A 309100 7T	10UF +-20% 50V	
	C915	64A701J2240AT	0 22uF/50V +-5%	
	C916	65A 444681 5T	680PF 10% 50V Y5P	
@	C918	67A 309330 3T	33UF +-20% 16V	
	C924	65A 1K101 5T6052	100PF/1KV Y5P+-10%	
	C925	67A 309100 7T	10UF +-20% 50V	
	C926	67A 309229 7T	2 2UF +-20% 50V	
	C930	67A 305470 7T	47UF +-20% 50V	
	C931	67A 305100 9	10UF +-20% 100V	
	C933	65A 442471 9T	470PF 50V	
@	C935	67A 305470 7T	47UF +-20% 50V	
	C941	64A176J104 1T	0 1UF 5% 100V	
@	C942	65A 442470 9T	47pF/50V SL	
	C943	65A 44215113T	150PF +-5% NPO 50V	
@	C944	67A 309100 7T	10UF +-20% 50V	
	C946	65A 1K101 5T6052	100PF/1KV Y5P+-10%	
	C949	65A 1K470 5T6052	47P/1KV	

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@	C950	65A 1K221 2T6052	220PF/1KV Z5P+-10%	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	C953	67A 305101 7T	100UF +-20% 50V	
@	C954	65A 450104 7T	0 1UF +80-20% 50V Y5V	
	C955	65A517K471 1T6213	470PF/500 Z5F +-10%	
	C956	67A 305229 7T	2 2UF +-20% 50V	
	C957	64A 45G3330AT	0 033UF 50% 50V	
@	C958	64A176J102 1T	001UF +-5% 100V	
	C959	64A176J104 1T	0 1UF 5% 100V	
	C963	65A517M103 3T6213	10NF/500V Z5U +-20%	
	D106	95A 90 23	TIN COATED	
	D202	93A 64 1152T	DIODE 1N4148	
	D203	93A 64 1152T	DIODE 1N4148	
	D401	93A 6431T52T	BAV20	
	D402	93A 6450152T	SWITCHING DIODE BAV21	
	D403	93A 64 1152T	DIODE 1N4148	
@	D404	93A1040 252T	F R D UF4004/GIT	
	D405	93A1002 1P52T	1N5817	
	D406	93A1060 652T	F R D BYV26C	
	D407	93A 64 1152T	DIODE 1N4148	
	D409	93A 64 1152T	DIODE 1N4148	
	D410	93A 6450152T	SWITCHING DIODE BAV21	
	D411	93A 64 1152T	DIODE 1N4148	
	D412	93A1040 252T	F R D UF4004/GIT	
	D413	93A 64 1152T	DIODE 1N4148	
@	D414	93A 6021P52T	PS156R	
	D415	93A 6021P52T	PS156R	
	D416	93A 6021P52T	PS156R	
	D418	93A 6431G52T	BAV20	
	D421	93A 5247P52T	1N4004	
@	D422	93A 5247P52T	1N4004	
	D423	93A 5247P52T	1N4004	
	D430	93A 64 1152T	DIODE 1N4148	
	D450	93A 64 1152T	DIODE 1N4148	
@	D601	93A 5247P52T	1N4004	
	D604	93A 64 1152T	DIODE 1N4148	
	D703	95A 90 23	TIN COATED	
@	D704	93A1060 652T	F R D BYV26C	
	D705	93A 6021P52T	PS156R	
	D706	93A 6021P52T	PS156R	
	D707	93A 64 1152T	DIODE 1N4148	
	D708	93A 6021P52T	PS156R	
	D709	93A 64 1152T	DIODE 1N4148	
	D710	93A 64 1152T	DIODE 1N4148	
	D901	93A1060 652T	F R D BYV26C	
	D902	93A 64 1152T	DIODE 1N4148	
	D904	93A 64 1152T	DIODE 1N4148	
	D905	93A 64 1152T	DIODE 1N4148	
	D906	93A1060 652T	F R D BYV26C	
	D909	93A 64 1152T	DIODE 1N4148	
	D910	93A 64 1152T	DIODE 1N4148	
	D911	93A 64 1152T	DIODE 1N4148	
	D917	93A 64 1152T	DIODE 1N4148	
	D920	93A 52 1P52T	1N4005	
	D924	93A 64 1152T	DIODE 1N4148	
	D926	93A 6038P52T	PS102R	

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	D927	93A 6038P52T	PS102R	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	D928	93A 6450152T	SWITCHING DIODE BAV21	
@	D929	93A 64 1152T	DIODE 1N4148	
	D931	93A 64 1152T	DIODE 1N4148	
	D932	93A 64 1152T	DIODE 1N4148	
	D933	93A1060 652T	F R D BYV26C	
	FB901	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
@	FB903	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
	FB904	95A 90 23	TIN COATED	
@	FB906	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
	FB907	95A 90 23	TIN COATED	
@	IC904	56A 158 1 T	TL431CLP	
	J001	95A 90 23	TIN COATED	
	J002	95A 90 23	TIN COATED	
	J005	95A 90 23	TIN COATED	
	J006	95A 90 23	TIN COATED	
	J007	95A 90 23	TIN COATED	
	J008	95A 90 23	TIN COATED	
	J009	95A 90 23	TIN COATED	
	J010	61A175L22852T	CFR 0 22 OHM +-5% 1/2W	
	J011	95A 90 23	TIN COATED	
	J012	95A 90 23	TIN COATED	
	J013	95A 90 23	TIN COATED	
	J014	95A 90 23	TIN COATED	
	J016	95A 90 23	TIN COATED	
	J019	95A 90 23	TIN COATED	
	J020	95A 90 23	TIN COATED	
	J021	95A 90 23	TIN COATED	
	J022	95A 90 23	TIN COATED	
	J023	95A 90 23	TIN COATED	
	J024	95A 90 23	TIN COATED	
	J025	95A 90 23	TIN COATED	
	J026	95A 90 23	TIN COATED	
	J027	95A 90 23	TIN COATED	
	J028	95A 90 23	TIN COATED	
	J029	95A 90 23	TIN COATED	
	J030	95A 90 23	TIN COATED	
	J031	95A 90 23	TIN COATED	
	J032	95A 90 23	TIN COATED	
	J033	95A 90 23	TIN COATED	
	J034	95A 90 23	TIN COATED	
	J035	95A 90 23	TIN COATED	
	J036	95A 90 23	TIN COATED	
	J037	95A 90 23	TIN COATED	
	J038	95A 90 23	TIN COATED	
	J039	95A 90 23	TIN COATED	
	J040	95A 90 23	TIN COATED	
	J041	95A 90 23	TIN COATED	
	J042	95A 90 23	TIN COATED	
	J044	95A 90 23	TIN COATED	
	J045	95A 90 23	TIN COATED	
	J046	95A 90 23	TIN COATED	
	J047	95A 90 23	TIN COATED	
	J048	95A 90 23	TIN COATED	
	J049	95A 90 23	TIN COATED	

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J050	95A 90 23	TIN COATED	
LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
J051	95A 90 23	TIN COATED	
J052	95A 90 23	TIN COATED	
J053	95A 90 23	TIN COATED	
J054	95A 90 23	TIN COATED	
J055	95A 90 23	TIN COATED	
J056	95A 90 23	TIN COATED	
J057	95A 90 23	TIN COATED	
J060	95A 90 23	TIN COATED	
J062	95A 90 23	TIN COATED	
J063	95A 90 23	TIN COATED	
J064	95A 90 23	TIN COATED	
J065	95A 90 23	TIN COATED	
J067	95A 90 23	TIN COATED	
J068	95A 90 23	TIN COATED	
J069	95A 90 23	TIN COATED	
J070	95A 90 23	TIN COATED	
J071	95A 90 23	TIN COATED	
J072	95A 90 23	TIN COATED	
J073	95A 90 23	TIN COATED	
J074	95A 90 23	TIN COATED	
J076	95A 90 23	TIN COATED	
J077	95A 90 23	TIN COATED	
J079	95A 90 23	TIN COATED	
J080	95A 90 23	TIN COATED	
J081	95A 90 23	TIN COATED	
J082	95A 90 23	TIN COATED	
J084	95A 90 23	TIN COATED	
J086	95A 90 23	TIN COATED	
J087	95A 90 23	TIN COATED	
J088	95A 90 23	TIN COATED	
J089	95A 90 23	TIN COATED	
J090	95A 90 23	TIN COATED	
J091	95A 90 23	TIN COATED	
J092	95A 90 23	TIN COATED	
J093	95A 90 23	TIN COATED	
J094	95A 90 23	TIN COATED	
J095	95A 90 23	TIN COATED	
J096	95A 90 23	TIN COATED	
J098	95A 90 23	TIN COATED	
J099	95A 90 23	TIN COATED	
J1-4	95A 90 23	TIN COATED	FOR "IC104 P1 P4"
J100	95A 90 23	TIN COATED	
J101	95A 90 23	TIN COATED	
J103	95A 90 23	TIN COATED	
J104	95A 90 23	TIN COATED	
J105	95A 90 23	TIN COATED	
J106	95A 90 23	TIN COATED	
J107	95A 90 23	TIN COATED	
J109	95A 90 23	TIN COATED	
J110	95A 90 23	TIN COATED	
J111	95A 90 23	TIN COATED	
J112	95A 90 23	TIN COATED	
J113	95A 90 23	TIN COATED	
J114	95A 90 23	TIN COATED	

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	LOCATION	AMB793Z5NAYL	SPECIFICATION	REMARK
	J116	95A 90 23	TIN COATED	
	J117	95A 90 23	TIN COATED	
	J118	95A 90 23	TIN COATED	
	J119	95A 90 23	TIN COATED	
	J120	95A 90 23	TIN COATED	
	J121	95A 90 23	TIN COATED	
	J122	95A 90 23	TIN COATED	
	J123	95A 90 23	TIN COATED	
	J124	95A 90 23	TIN COATED	
	J125	95A 90 23	TIN COATED	
	J126	95A 90 23	TIN COATED	
	J127	95A 90 23	TIN COATED	
	J131	95A 90 23	TIN COATED	
	J132	95A 90 23	TIN COATED	
	J133	95A 90 23	TIN COATED	
	J134	95A 90 23	TIN COATED	
	J140	95A 90 23	TIN COATED	
	J146	95A 90 23	TIN COATED	
	J148	95A 90 23	TIN COATED	
	J149	95A 90 23	TIN COATED	
	J150	95A 90 23	TIN COATED	
	J151	95A 90 23	TIN COATED	
	J152	95A 90 23	TIN COATED	
	J153	95A 90 23	TIN COATED	
	J155	95A 90 23	TIN COATED	
	J156	95A 90 23	TIN COATED	
	J157	95A 90 23	TIN COATED	
	J901	95A 90 23	TIN COATED	
	L405	73A 5410110T	100UH +-10%	
	Q102	57A 44650I T	2SC2120Y	
	Q205	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q206	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q401	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q404	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q406	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q407	57A 446 1 T	TRAN 2SC1213AC/HITACHI	
@	Q408	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q409	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q410	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q411	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q413	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q419	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q427	57A 721 1 T	DTC114ESA	
	Q428	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q429	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q450	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q701	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q702	57A 420 P T	TRAN 2SA733P/NEC TAPING	
@	Q703	57A 420 P T	TRAN 2SA733P/NEC TAPING	
	Q704	57A 446 1 T	TRAN 2SC1213AC/HITACHI	
	Q705	57A 419 Y T	TR 2SC1815Y TOSHIBA	
	Q706	57A 498 1 T	TRAN BF423 TAPING PHIL1	
	Q707	57A 721 1 T	DTC114ESA	
	Q708	57A 708 1 T	2SC4002E	
@	Q709	57A 419 P T	TRAN 2SC945P/NEC TAPING	

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	Q904	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	Q905	57A 708 1 T	2SC4002E	
	Q906	57A 721 1 T	DTC114ESA	
	Q907	57A 419 P T	TRAN 2SC945P/NEC TAPING	
@	Q912	57A 446 1 T	TRAN 2SC1213AC/HITACHI	
	Q914	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	Q915	57A 619 1 T	2SA673AC/HITACHI	
	Q917	57A 419 P T	TRAN 2SC945P/NEC TAPING	
	R050	61A 60236252T	CFR 3 6K OHM+-5% 1/6W	
	R101	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R104	61A 60256252T	CFR 5 6KOHM+-5% 1/6W	
	R107	61A 60227252T	CFR 2 7K OHM+-5% 1/6W	
	R111	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R112	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R113	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R114	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R115	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R119	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R119A	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R120	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R121	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R122	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R123	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R123A	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R124	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R125	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R129	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R130	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R131	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R132	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R134	61A 17210552T	CFR 1MOHM +-5% 1/4W	
	R135	61A 17222052T	CFR 22OHM+-5% 1/4W	
	R136	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R137	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R138A	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R139	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R140	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R141A	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R149	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R151	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R152	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R153	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R157	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R219	61A 60236352T	CFR 36K OHM+-5% 1/6W	
	R221	61A 60215352T	CFR 15K OHM+-5% 1/6W	
	R222	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R223	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R224	61A 17251052T	CFR 51OHM +-5% 1/4W	
	R401	61A 60218252T	CFR 1 8K OHM+-5% 1/6W	
	R402	61A 17291352T	CFR 91KOHM+-5% 1/4W	
	R404	61A 17247452T	CFR 470K OHM +-5% 1/4W	
@	R405	61A175L10452T	CFR 100K OHM +-5% 1/2W	
	R406	61A 60227152T	CFR 270 OHM +-5% 1/6W	
	R407	61A 60215352T	CFR 15K OHM+-5% 1/6W	
	R408	61A 17215252T	CFR 1 5K OHM +-5% 1/4W	

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	R409	61A 17222352T	CFR 22KOHM+-5% 1/4W	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	R410	61A 60236152T	CFR 360 OHM+-5% 1/6W	
	R411	61A 17210552T	CFR 1MOHM +-5% 1/4W	
	R412	61A 60251352T	CFR 51K OHM +-5% 1/6W	
	R413	61A 21022352T	MFR 22K OHM +- 1% 1/6W	
	R414	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R415	61A 60222352T	CFR 22K OHM+-5% 1/6W	
	R416	61A 60222052T	CFR 22 OHM+-5% 1/6W	
	R417	61A 60222352T	CFR 22K OHM+-5% 1/6W	
	R418	61A 60251252T	CFR 5 1K OHM+-5% 1/6W	
	R419	61A 60239352T	CFR 39K OHM +-5% 1/6W	
	R420	61A 17210352T	CFR 10KOHM +-5% 1/4W	
	R421	61A 17215252T	CFR 1 5K OHM +-5% 1/4W	
	R422	61A 17215452T	CFR 150K OHM +-5% 1/4W	
	R423	61A 17210252T	CFR 1KOHM +-5% 1/4W	
	R424	61A 60210052T	CFR 10 OHM +-5% 1/6W	
@	R425	61A175L22252T	CFR 2 2K OHM +-5% 1/2W	
	R431	61A 60282252T	CFR 8 2K OHM +-5% 1/6W	
	R432	61A 60233352T	CFR 33K OHM+-5% 1/6W	
	R433	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R434	61A 60224352T	CFR 24K OHM +-5% 1/6W	
	R435	61A 60239252T	CFR 3 9K OHM+-5% 1/6W	
	R436	61A214Y24452T	MGFR 240K OHM +-5% 1/4W	
	R437	61A 17215252T	CFR 1 5K OHM +-5% 1/4W	
	R438	61A 17215252T	CFR 1 5K OHM +-5% 1/4W	
	R441	61A 60256352T	CFR 56K OHM +-5% 1/6W	
	R442	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R443	61A 21013252T	MFR 1 3K OHM +- 1% 1/6W	
	R444	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R445	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R446	61A 17215452T	CFR 150K OHM +-5% 1/4W	
	R447	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R448	61A 60256352T	CFR 56K OHM +-5% 1/6W	
	R449	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R450	61A 17247452T	CFR 470K OHM +-5% 1/4W	
	R452	95A 90 23	TIN COATED	
	R453	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R455	61A 60233252T	CFR 3 3K OHM+-5% 1/6W	
	R458	61A 60230352T	CFR 30K OHM+-5% 1/6W	
	R459	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R460	61A 17215452T	CFR 150K OHM +-5% 1/4W	
@	R461	61A 60256352T	CFR 56K OHM +-5% 1/6W	
	R462	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R465	61A 60215352T	CFR 15K OHM+-5% 1/6W	
	R466	61A 60233352T	CFR 33K OHM+-5% 1/6W	
	R467	61A 60233352T	CFR 33K OHM+-5% 1/6W	
	R468	61A 60233352T	CFR 33K OHM+-5% 1/6W	
	R470	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R471	61A 60256152T	CFR 560 OHM +-5% 1/6W	
	R473	61A 17220452T	CFR 200KOHM+-5% 1/4W	
	R474	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R475	61A 17210452T	CFR100K OHM +-5% 1/4W	
@	R477	61A 60291352T	CFR 91K OHM +-5% 1/6W	
	R478	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R479	61A 60233252T	CFR 3 3K OHM+-5% 1/6W	

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@	R480	61A175L15052T	CFR 15 OHM +-5% 1/2W	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	R482	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R483	61A 60247152T	CFR 470 OHM +-5% 1/6W	
	R485	61A 60215152T	CFR 150 OHM +-5% 1/6W	
	R488	61A 60210052T	CFR 10 OHM +-5% 1/6W	
	R489	61A 60210052T	CFR 10 OHM +-5% 1/6W	
	R491	61A175L62852T	CFR 0 62 OHM +-5% 1/2W	
	R493	61A 60210052T	CFR 10 OHM +-5% 1/6W	
@	R497	61A175L22552T	CFR 2 2MOHM+-5% 1/2W	
	R606	61A 60268252T	CFR 6 8K OHM+-5% 1/6W	
	R607	61A 60212352T	CFR 12K OHM+-5% 1/6W	
	R608	61A 21047352T	MFR 47K OHM +- 1% 1/6W	
	R610	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R614	61A 21036252T	MFR 3 6K OHM +- 1% 1/6W	
	R615	61A 21030352T	MFR 30K OHM +- 1% 1/6W	
@	R617	61A175L27152T	CFR 270 OHM +-5% 1/2W	
	R619	61A175L15952T	CFR 1 5 OHM +-5% 1/2W	
	R620	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R701	61A 60210352T	CFR 10K OHM+-5% 1/6W	
@	R702	61A 60291352T	CFR 91K OHM +-5% 1/6W	
	R703	61A 60262252T	CFR 6 2K OHM +-5% 1/6W	
	R704	61A 17218252T	CFR 1 8K OHM +-5% 1/4W	
	R705	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R706	61A 60210052T	CFR 10 OHM +-5% 1/6W	
	R707	61A 60210352T	CFR 10K OHM+-5% 1/6W	
@	R708	61A 60282352T	CFR 82K OHM +-5% 1/6W	
	R709	61A 60210352T	CFR 10K OHM+-5% 1/6W	
@	R710	61A175L15052T	CFR 15 OHM +-5% 1/2W	
	R711	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
	R713	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R714	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R715	95A 90 23	TIN COATED	
	R718	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R719	61A 21011252T	MFR 1 1KOHM +-1% 1/6W	
@	R720	61A214Y12552T	MGFR 1 2MOHM +-5% 1/4W	
	R721	61A 17215452T	CFR 150K OHM +-5% 1/4W	
	R722	61A 60216352T	CFR 16K OHM +-5% 1/6W	
@	R724	61A214Y10552T	MGFR 1M OHM +-5% 1/4W	
	R725	61A212Y27452T	MGFR 270K OHM +-5% 1/2W	
	R726	61A 60210352T	CFR 10K OHM+-5% 1/6W	
@	R728	61A212Y10552T	MGFR 1M OHM+-5% 1/2W	
	R729	61A 60210352T	CFR 10K OHM+-5% 1/6W	
	R730	61A 17247952T	CFR 4 7 OHM +-5% 1/4W	
	R731	61A175L27452T	CFR 270K OHM +-5% 1/2W	
@	R733	61A 60262352T	CFR 62KOHM+-5% 1/6W	
	R734	61A214Y47552T	MGFR 4 7M OHM +-5% 1/4W	
	R735	61A 60215252T	CFR 1 5K OHM +-5% 1/6W	
	R736	61A 60282252T	CFR 8 2K OHM +-5% 1/6W	
	R737	95A 90 23	TIN COATED	
	R738	61A 60282252T	CFR 8 2K OHM +-5% 1/6W	
@	R739	61A175L62352T	CFR 62K OHM +-5% 1/2W	
	R740	61A175L27452T	CFR 270K OHM +-5% 1/2W	
	R741	61A 60247252T	CFR 4 7K OHM+-5% 1/6W	
@	R742	61A175L15452T	CFR 150KOHM+-5% 1/2W	
	R744	61A 60230252T	CFR 3K OHM+-5% 1/6W	

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	R745	61A 60218252T	CFR 1 8K OHM+-5% 1/6W	
	LOCATION	**AMB793Z5NAYL**	**SPECIFICATION**	**REMARK**
	R901	61A175L47452T	CFR 470K OHM +-5% 1/2W	
@	R902	61A212Y10652T	10MOHM +-5% 1/2W 妮	
	R903	61A175L10152T	CFR 100 OHM +-5% 1/2W	
	R904	61A 17210352T	CFR 10KOHM +-5% 1/4W	
	R905	61A 17210352T	CFR 10KOHM +-5% 1/4W	
	R906	61A 60233152T	CFR 330 OHM+-5% 1/6W	
@	R908	61A175L47352T	CFR 47K OHM +-5% 1/2W	
	R909	61A 17268252T	CFR 6 8K OHM +-5% 1/4W	
	R913	61A 17215052T	CFR 15 OHM +-5% 1/4W	
	R915	61A 60212252T	CFR 1 2K OHM+-5% 1/6W	
	R916	61A 17230252T	CFR 3KOHM+-5% 1/4W	
	R917	61A 17213452T	CFR 130K OHM +-5% 1/4W	
@	R918	61A175L75352T	CFR 75K OHM +-5% 1/2W	
	R919	61A 21022252T	MFR 2 2K OHM +- 1% 1/6W	
@	R921	61A175L56352T	CFR 56K OHM +-5% 1/2W	
	R922	61A214Y10552T	MGFR 1M OHM +-5% 1/4W	
	R923	61A 60210252T	CFR 1K OHM+-5% 1/6W	
	R924	61A 60210352T	CFR 10K OHM+-5% 1/6W	
@	R925	61A 60268152T	CFR 680 OHM +-5% 1/6W	
	R929	61A 17218252T	CFR 1 8K OHM +-5% 1/4W	
	R938	61A 17213452T	CFR 130K OHM +-5% 1/4W	
	R939	61A 17227452T	CFR 270KOHM+-5% 1/4W	
	R940	61A 17224452T	CFR 240KOHM+-5% 1/4W	
	R941	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
	R942	61A 60210152T	CFR 100 OHM+-5% 1/6W	
	R944	61A 60230252T	CFR 3K OHM+-5% 1/6W	
	R945	61A214Y10552T	MGFR 1M OHM +-5% 1/4W	
	R955	95A 90 23	TIN COATED	
	R956	61A 17210252T	CFR 1KOHM +-5% 1/4W	
	R960	61A 60247352T	CFR 47K OHM+-5% 1/6W	
	R962	61A 17256052T	CFR 56 OHM +-5% 1/4W	
	R963	61A 17210052T	CFR 10OHM+-5% 1/4W	
@	R969	61A214Y82352T	MGFR 82K OHM +-5% 1/4W	
	R970	61A 21056252T	MFR 5 6KOHM +-1% 1/6W	
	R971	61A 17210352T	CFR 10KOHM +-5% 1/4W	
@	R972	61A 60268252T	CFR 6 8K OHM+-5% 1/6W	
	R973	61A 60275352T	CFR 75K OHM +-5% 1/6W	
	R974	61A 60210152T	CFR 100 OHM+-5% 1/6W	
@	R975	61A212Y10452T	MGFR 100KOHM +-5% 1/2W	
	R998	61A 17227452T	CFR 270KOHM+-5% 1/4W	
	R999	61A 60256352T	CFR 56K OHM +-5% 1/6W	
	ZD102	93A 39 7352T	HZ6B1/HITACHI	
@	ZD402	93A 39 7352T	HZ6B1/HITACHI	
	ZD406	93A 39 7752T	HZ5C1	
	ZD408	93A 3951652T	TELEFUNKEN TZX5V1B	
	ZD409	95A 90 23	TIN COATED	
	ZD701	93A 39 7752T	HZ5C1	
@	ZD703	93A 39 2452T	HZ15-2	
	ZD704	93A 3951952T	TZX8V2B	
	ZD901	93A 39 7352T	HZ6B1/HITACHI	
	ZD903	93A 3911952T	ZD HZ22-2/HITACHI	

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PARTS LIST OF CRT PC BOARD

LOCATION	CRB793Z5NAYL	SPECIFICATION	REMARK
	ARB793Z5NAYL	CRT BOARD B793Z-5L ACER	
	40A 581 26605	LABEL	
	87A3504 ZW	CRT COCKET(QQ FOCUS)	
	705A792XR56 01	IC802 ASS'Y	
C829	67A 305470 9	47UF +-20% 100V	
C874	65A 2M103 3B6921	0 01UF 2KV 20% Z5U	
D863	93A 6021P52T	PS156R	
FB802	53A 40 8	FILTER	
FB803	53A 40 8	FILTER	
FB804	53A 40 8	FILTER	
FB806	71A 55 9 T	CORE RF BEAD RH 3 5X6X0	
FB807	71A 5519R	FERRITE BEAD 9X3 5X0 8	
FB808	71A 5519R	FERRITE BEAD 9X3 5X0 8	
FB810	71A 55 21	FERRITE BEAD 10*6 0*0 8	
FB852	71A 55 19 T	FERRITE BEAD 9X3 5X0 8	
G2	9A 203 8	BRASS PIN	
IC801	56A 539 5	LM1269NA BY NS	
IC803	56A 539 6	LM2480NA BY NS	
IC804	56A1131 24	NT68275-00029	
P801	33A3278 6D	WAFER	Insert on the Contrary
P802	33A3802 14	WAFER EH-14	
R822	61A152M101 64	MOFR 100OHM+-5% 2W	
R833	61A 17247452T	CFR 470K OHM +-5% 1/4W	
R845	61A152M150 64	MOFR 15 OHM+-5% 2W	
R848	61A152M229 64	MOFR 2 2 OHM +-5% 2W	
R863	61A152M100 64	MOFR 10 OHM+-5% 2W	

PARTS LIST OF CRT AUTO INS.PC BOARD

LOCATION	ARB793Z5NAYL	SPECIFICATION	REMARK
	6A 31 4	BRASS	
	715A 861 ICPQ	CRT BAORD	
R817	61A 60222152T	CFR 220 OHM +-5% I/6W	
C801	64A178J104 0T	CL21X0 1UF 63V +-5%	
C802	64A178J104 0T	CL21X0 1UF 63V +-5%	
C803	64A178J104 0T	CL21X0 1UF 63V +-5%	
C804	64A178J104 0T	CL21X0 1UF 63V +-5%	
C805	67A 309101 3T	100UF +-20% 16V	
C806	67A 305331 1T	330UF 6 3V	
C807	67A 305331 1T	330UF 6 3V	
C808	65A 44256013T	56PF +-5% NPO 50V	
C809	67A 309109 7T	1 0UF +-20% 50V	
C810	67A 309470 7T	47UF +-20% 50V	
C811	64A700J1030AT	0 01UF 50V +-5%	
C812	65A 450103 7T	10000PF/50V Y5V +80% -2	
C813	65A 44247I 9T	470PF 50V	
C814	65A 44247013T	47PF +-5% NPO 50V	
C815	65A 450104 7T	0 IUF +80-20% 50V Y5V	

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C816	67A 309101 3T	100UF +-20% 16V	
C817	67A 305220 9T	22UF +-20% 100V	
LOCATION	**ARB793Z5NAYL**	**SPECIFICATION**	**REMARK**
C818	64A178J104 0T	CL21X0 1UF 63V +-5%	
C819	65A 44210013T	10PF +-5% NPO 50V	
C820	65A 44210013T	10PF +-5% NPO 50V	
C821	64A178J104 0T	CL21X0 1UF 63V +-5%	
C822	64A178J104 0T	CL21X0 1UF 63V +-5%	
C823	64A178J104 0T	CL21X0 1UF 63V +-5%	
C824	64A178J104 0T	CL21X0 1UF 63V +-5%	
C825	65A 44210013T	10PF +-5% NPO 50V	
C826	65A 1K101 5T6052	100PF/1KV Y5P+-10%	
C828	65A 550103 4T	0 01UF 100V/Z5V	
C831	65A 550103 4T	0 01UF 100V/Z5V	
C832	67A 309109 9T	1UF +-20% 100V	
C833	65A 450104 7T	0 1UF +80-20% 50V Y5V	
C840	65A 550103 4T	0 01UF 100V/Z5V	
C842	65A 44410313T	10000PF +-10% Z5P 50V	
C851	67A 309470 7T	47UF +-20% 50V	
C852	65A 450104 7T	0 1UF +80-20% 50V Y5V	
C853	67A 70109 9T	1UF +-20% 100V	
C854	67A 70109 9T	1UF +-20% 100V	
C855	67A 70109 9T	1UF +-20% 100V	
C856	65A 550103 4T	0 01UF 100V/Z5V	
C857	65A 550103 4T	0 01UF 100V/Z5V	
C858	65A 550103 4T	0 01UF 100V/Z5V	
C859	65A517K102 2T6213	1000PF 10% Z5P 500V	
C861	65A517K102 2T6213	1000PF 10% Z5P 500V	
C862	65A517K102 2T6213	1000PF 10% Z5P 500V	
C864	65A 550103 4T	0 01UF 100V/Z5V	
C867	65A 450104 7T	0 1UF +80-20% 50V Y5V	
C871	67A 309101 3T	100UF +-20% 16V	
C873	65A517K102 2T6213	1000PF 10% Z5P 500V	
C875	65A 450104 7T	0 1UF +80-20% 50V Y5V	
C876	65A 44210113T	100PF +-5% NPO 50V	
C877	65A 44210113T	100PF +-5% NPO 50V	
C879	65A 1K101 5T6052	100PF/1KV Y5P+-10%	
D801	93A 64 1152T	DIODE 1N4148	
D802	93A 64 1152T	DIODE 1N4148	
D803	93A 64 1152T	DIODE 1N4148	
D804	93A 64 1152T	DIODE 1N4148	
D805	93A 64 1152T	DIODE 1N4148	
D806	93A 64 1152T	DIODE 1N4148	
D820	95A 90 23	TIN COATED	
D850	93A 6450152T	SWITCHING DIODE BAV21	
D851	93A 6450152T	SWITCHING DIODE BAV21	
D852	93A 6450152T	SWITCHING DIODE BAV21	
D853	93A 6450152T	SWITCHING DIODE BAV21	
D854	93A 6450152T	SWITCHING DIODE BAV21	
D855	93A 6450152T	SWITCHING DIODE BAV21	
D856	93A 6431T52T	BAV20	
D857	93A 6431T52T	BAV20	
D858	93A 6431T52T	BAV20	
FB801	71A 55 9 T	CORE RF BEAD RH 3 5X6X0	
FB805	71A 55 9 T	CORE RF BEAD RH 3 5X6X0	
FB809	71A 55 9 T	CORE RF BEAD RH 3 5X6X0	

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FB851	71A 55 9 T	CORE RF BEAD RH 3 5X6X0	
J801	95A 90 23	TIN COATED	
LOCATION	**ARB793Z5NAYL**	**SPECIFICATION**	**REMARK**
J802	95A 90 23	TIN COATED	
J803	95A 90 23	TIN COATED	
J804	95A 90 23	TIN COATED	
J805	95A 90 23	TIN COATED	
J806	95A 90 23	TIN COATED	
J807	95A 90 23	TIN COATED	
J808	95A 90 23	TIN COATED	
J809	95A 90 23	TIN COATED	
J810	95A 90 23	TIN COATED	
J811	95A 90 23	TIN COATED	
J812	95A 90 23	TIN COATED	
J815	95A 90 23	TIN COATED	
L801	73A 5410810T	Peaking Coil 0 1UH +-10	
L802	73A 5410810T	Peaking Coil 0 1UH +-10	
L803	73A 5410810T	Peaking Coil 0 1UH +-10	
L804	61A 17210152T	CFR 100OHM+-5% 1/4W	
L850	73A 5433810T	0 33uH +-10%	
L851	73A 5422810T	0 22UH +-10%	
L852	73A 5433810T	0 33uH +-10%	
R801	61A 60275052T	CFR 75 OHM+-5% 1/6W	
R802	61A 60275052T	CFR 75 OHM+-5% 1/6W	
R803	61A 60275052T	CFR 75 OHM+-5% 1/6W	
R804	61A 60233052T	CFR 33 OHM +-5% 1/6W	
R805	61A 60233052T	CFR 33 OHM +-5% 1/6W	
R806	61A 60233052T	CFR 33 OHM +-5% 1/6W	
R807	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R808	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R809	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R810	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R811	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R812	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R813	61A 21010352T	MFR 10K OHM +- 1% 1/6W	
R814	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R815	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R818	61A 60210152T	CFR 100 OHM+-5% 1/6W	
R820	61A 60282252T	CFR 8 2K OHM +-5% 1/6W	
R821	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R823	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R824	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R825	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R826	61A 60222152T	CFR 220 OHM +-5% 1/6W	
R827	61A 60222352T	CFR 22K OHM+-5% 1/6W	
R828	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
R830	61A 60256252T	CFR 5 6KOHM+-5% 1/6W	
R831	61A 60256252T	CFR 5 6KOHM+-5% 1/6W	
R832	61A 60275252T	CFR 7 5K OHM +-5% 1/6W	
R834	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R835	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R836	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R837	61A 60210252T	CFR 1K OHM+-5% 1/6W	
R839	61A 60222252T	CFR 2 2K OHM +-5% 1/6W	
R847	61A 60222052T	CFR 22 OHM+-5% 1/6W	
R854	61A 17222052T	CFR 22OHM+-5% 1/4W	

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R855	61A 17222052T	CFR 22OHM+-5% 1/4W	
R856	61A 17222052T	CFR 22OHM+-5% 1/4W	
LOCATION	**ARB793Z5NAYL**	**SPECIFICATION**	**REMARK**
R857	61A 17210552T	CFR 1MOHM +-5% 1/4W	
R858	61A 17210552T	CFR 1MOHM +-5% 1/4W	
R859	61A 17210552T	CFR 1MOHM +-5% 1/4W	
R860	61A 17210252T	CFR 1KOHM +-5% 1/4W	
R861	61A 17210252T	CFR 1KOHM +-5% 1/4W	
R862	61A 17210252T	CFR 1KOHM +-5% 1/4W	
R872	61A175L82052T	CFR 82 OHM +-5% 1/2W	
R873	61A175L82052T	CFR 82 OHM +-5% 1/2W	
R874	61A175L82052T	CFR 82 OHM +-5% 1/2W	
R879	61A175L10152T	CFR 100 OHM +-5% 1/2W	
R880	61A214Y56452T	560K 1/4W	
ZD801	93A 39 7752T	HZ5C1	

PARTS LIST OF IC802 ASS'Y

LOCATION	**PART No.**	**SPECIFICATION**	**REMARK**
	2A6003 1	SCREW NUT	
	90A6026 2	HEAT SINK	
	M1A1730 8128	SCREW M3x8	
@ IC802	56A 551 9	LM2467TA BY NS	

PARTS LIST OF AC IN SOCKET

LOCATION	**PART No.**	**SPECIFICATION**	**REMARK**
J	87A 501 6	RECEPTACLES	
	95A 800 2 2C	WIRE & CORE	
	96A 29 6190	H S TUBING DIA 4 0MM	

PARTS LIST OF C901 ASS'Y

LOCATION	**PART No.**	**SPECIFICATION**	**REMARK**
	90A 348508 A	HEAT SINK	
	M1A1730 10128	SCREW M3x10	
@ IC901	56A 379 24	STR-G9656D	

PARTS LIST OF DB901 ASS'Y

LOCATION	**PART No.**	**SPECIFICATION**	**REMARK**
	90A6038502	HEAT SINK	
	M1A1730 8128	SCREW M3x8	
@ DB901	93A 50460 7	GBJ4J	

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PARTS LIST OF IC601 ASS'Y

	LOCATION	PART No.	SPECIFICATION	REMARK
		5A 42501	Underlay Shce	
		5A 71 1	TRANSISTOR HOUSING	FOR"1C601"
		32A3028 8	MICA	"FOR IC601"
		90A 376 1	HEAT SINK	
		M1A1730 10128	SCREW M3x10	
@	IC601	56A 574 1	TDA9302H BY SGS	

PARTS LIST OF Q403/Q405/Q911/D408 ASS'Y

	LOCATION	PART No.	SPECIFICATION	REMARK
		5A 71 1	TRANSISTOR HOUSING	FOR "Q911"
		5A 71 1	TRANSISTOR HOUSING	Q405
		32A3028 8	MICA	
		32A3028505	MICA	"FOR Q405"
		90A 363527 P	HEAT SINK	
		M1A1130 8128	SCREW 3.0X8	
		M1A1730 8128	SCREW M3x8	"FOR D408"
		M1A1730 10128	SCREW M3x10	FOR Q403 Q911
		M1A1730 12128	SCREW	Q405
	D408	93A 220505	DMV1500M	
	Q403	57A 706504	2SC5909	
@	Q405	57A 415 1	TR NPN TIP122/FAIRCHILD	
	Q911	57A 600 27	IRF634B	

PARTS LIST OF C2 ASS'Y

LOCATION	PART No.	SPECIFICATION	REMARK
	15A5659500 2	Rear Bracket	
	B1A1140 6128	SCREW	

PARTS LIST OF C903 ASS'Y

	LOCATION	PART No.	SPECIFICATION	REMARK
		90A 275 6	HEAT SINK	
		M1A1730 8128	SCREW M3x8	
@	IC903	56A 133 12 ST	3 PIN 12V REG L7812CV S	

PARTS LIST OF Q420 ASS'Y

LOCATION	PART No.	SPECIFICATION	REMARK
	90A 361506 A	HEAT SINK	
	M1A1730 8128	SCREW M3x8	

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Q420	57A 600 14	CEPF630 BY CET

PARTS LIST OF D921 ASS'Y

LOCATION	PART No.	SPECIFICATION	REMARK
	90A6030 1	HEAT SINK	
D921	93A 6073A	F R D 3A/400V 31DF4/1 R	

PARTS LIST OF 7" CPT TCO CRT ASS'Y

LOCATION	PART No.	SPECIFICATION	REMARK
	750A57011AV	CPT17"0 25TCO HB FLAT C	
C418	63A210J4028FC	4000PF/2KV	
C419	63A210J4027FC	4000PF 1600V	
C425	63A210J2243CC	22U 400V	
C429	63A210J1252MC	1 2UF/250V +-5%	
C438	63A210J1042FC	0 1UF +-5% 250V	
C439	63A210J3042CC	0 3UF/250V	
C449	65A 2K251 5A6921	250P 2KV	
C453	63A210J2742CC	27UF +-5% 250V	
C498	65A 1K221 2T6052	220PF/1KV Z5P+-10%	
C499	65A 1K470 2T6052	47PF 1KV	
P701	33A3803 3	WAFER EH-E	
R498	61A 17256352T	CFR 56K OHM +-5% 1/4W	
R618	61A 208918 64	MOFR 0 91OHM +-5% 1W	
@ T402	79AS793 1	FBT BY SAMPO	
TP498	95A201M 50172	WIRE	

PARTS LIST OF 17" LG CRT ASS'Y

LOCATION	PART No.	SPECIFICATION	REMARK
	750A57452AV	LG 17"0 25 TCO HB FLAT	
C418	63A210J3628FC	3600PF/2KV	
C419	63A210J3927FC	3900PF 1 6KV	
C425	63A210J2243CC	22U 400V	
C429	63A210J1252MC	1 2UF/250V +-5%	
C438	63A210J1042FC	0 1UF +-5% 250V	
C439	63A210J3042CC	0 3UF/250V	
C449	65A 2K470 6A6921	47PF 2KV	
C450	65A 2K101 5A6921	100P 2KV	
C453	63A210J2742CC	27UF +-5% 250V	
C498	65A 1K221 2T6052	220PF/1KV Z5P+-10%	
C499	65A 1K470 2T6052	47PF 1KV	
P701	33A3803 3	WAFER EH-E	
R498	61A 17256352T	CFR 56K OHM +-5% 1/4W	
R618	61A 208918 64	MOFR 0 91OHM +-5% 1W	
@ T402	79AS793 1	FBT BY SAMPO	
TP498	95A201M 50172	WIRE	

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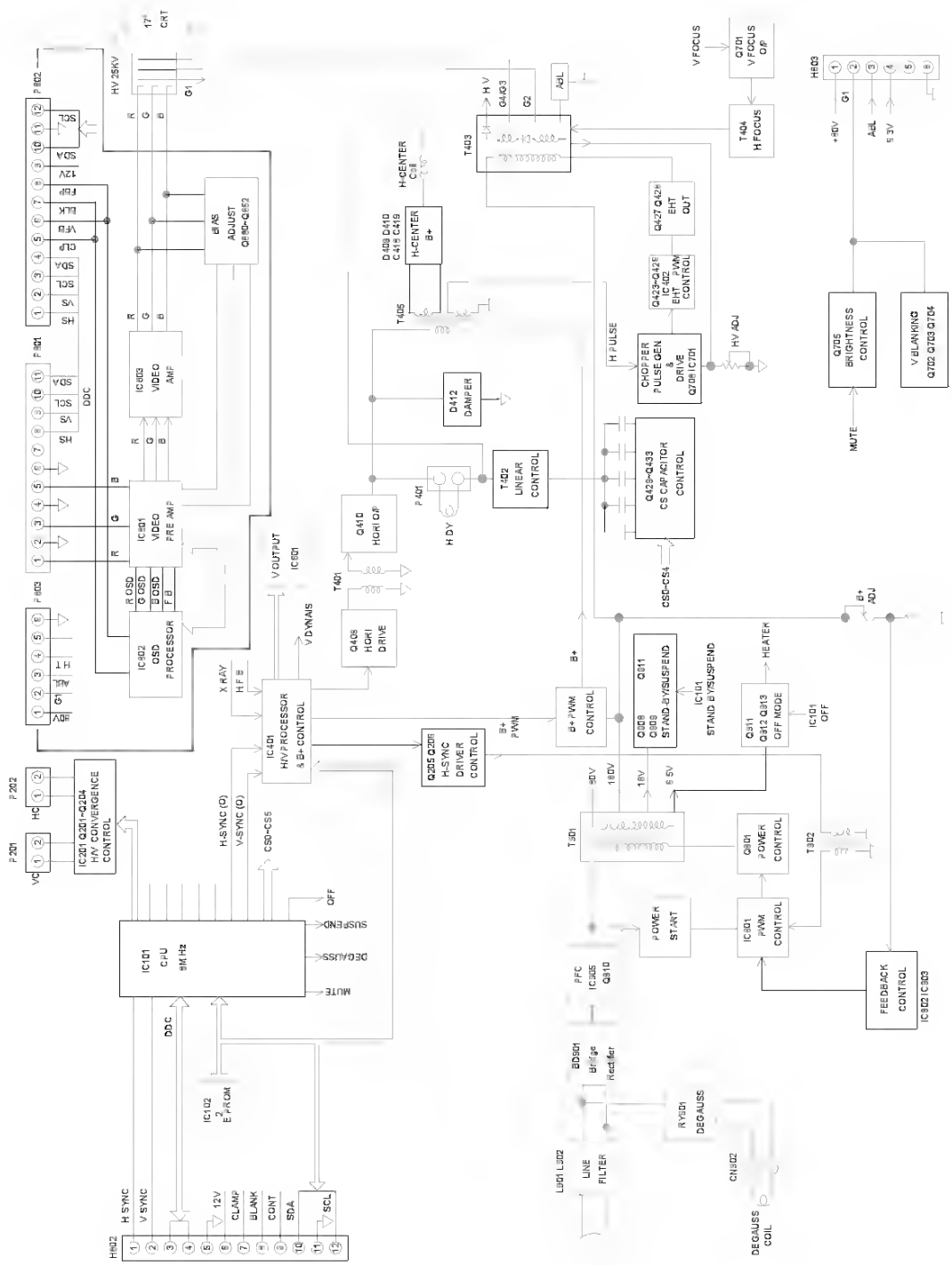
9. BLOCK DIAGRAM



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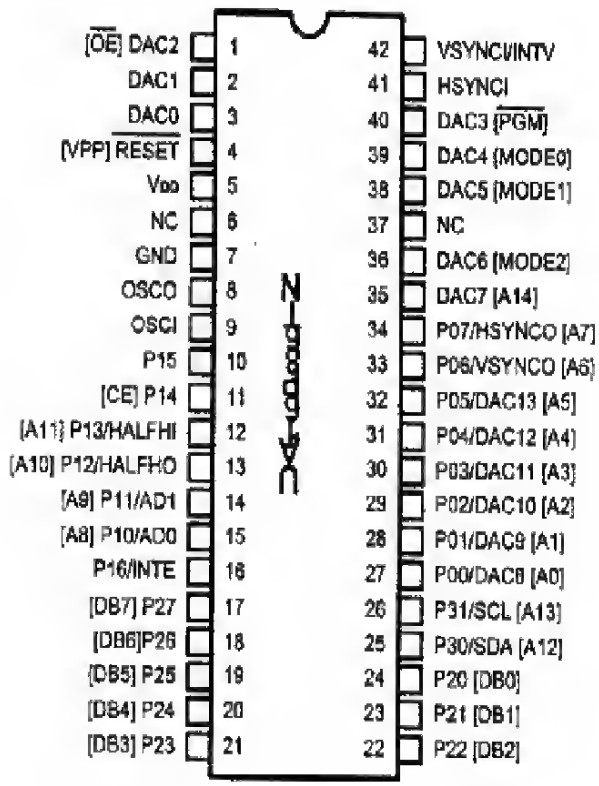
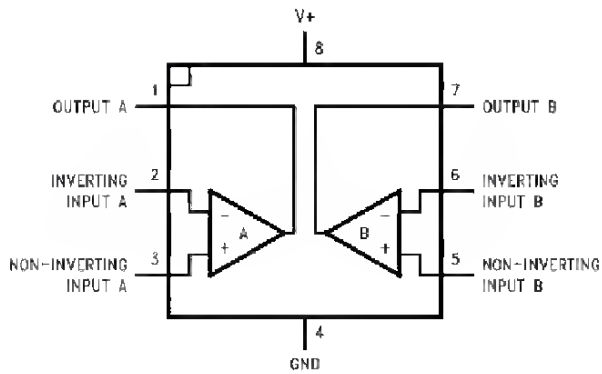
10. IC BLOCK DIAGRAM

IC101 NT6861



IC201/IC701/IC906
LM358



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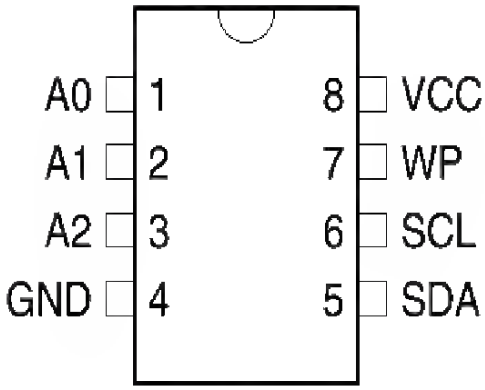
IC102 24C08



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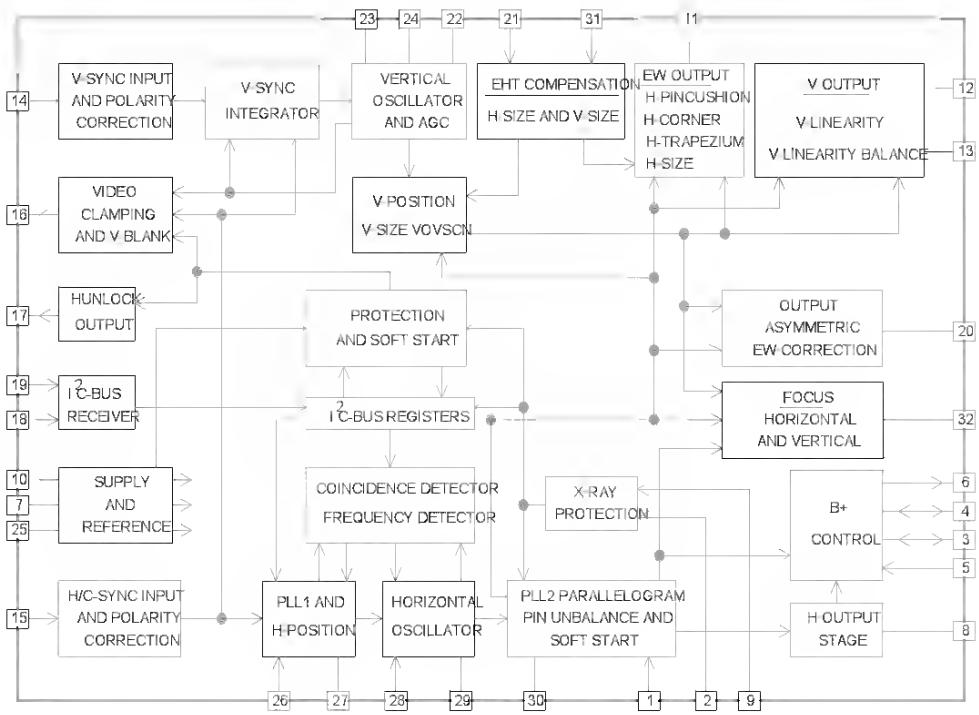

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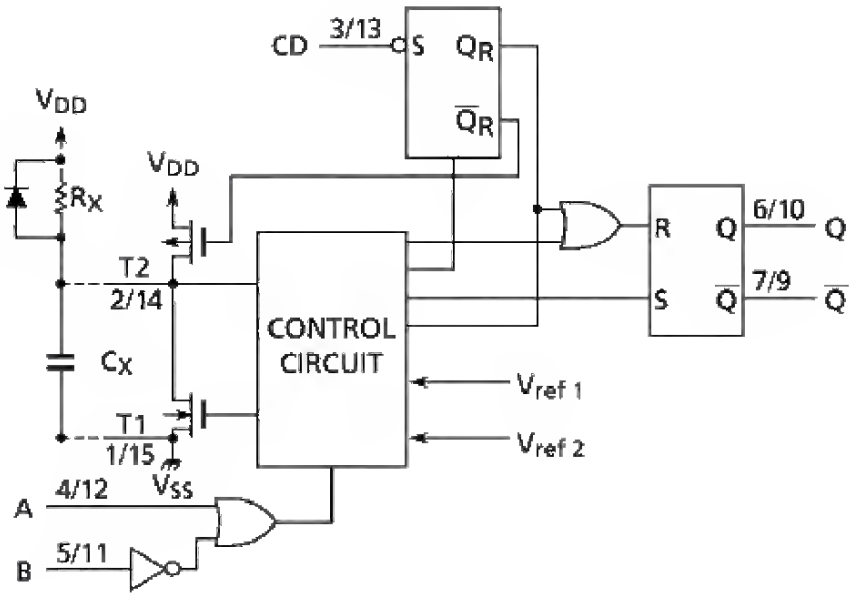
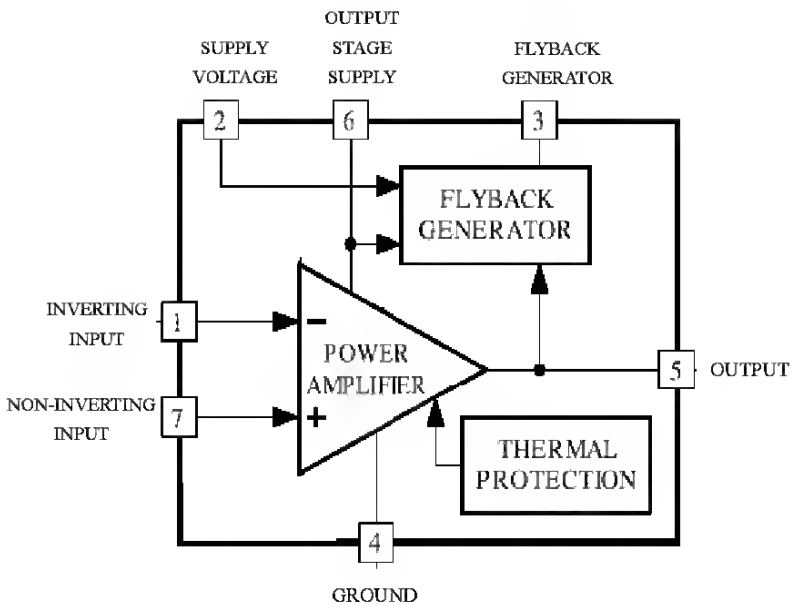


IC601 TDA8172/TDA9302



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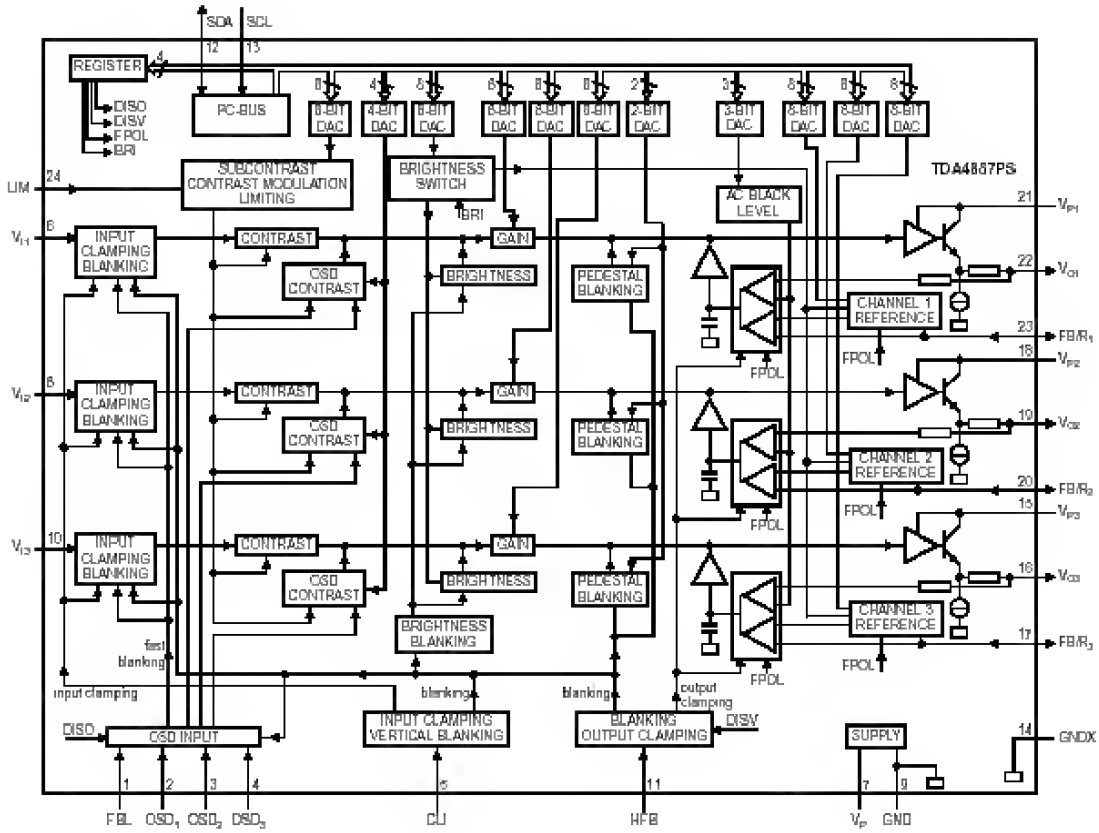
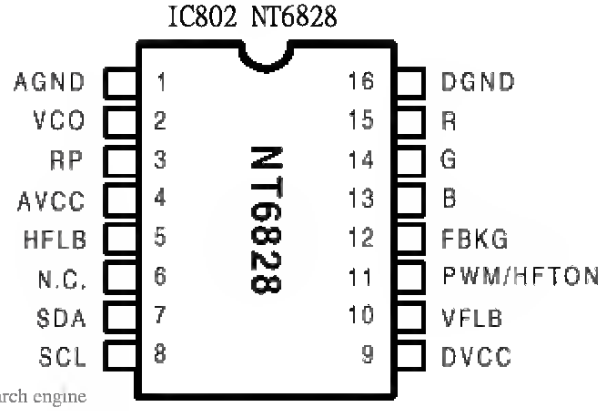
IC801 TDA4887



IC802 NT6828



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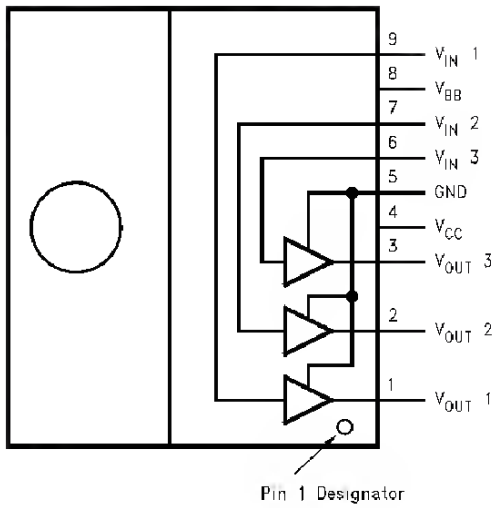
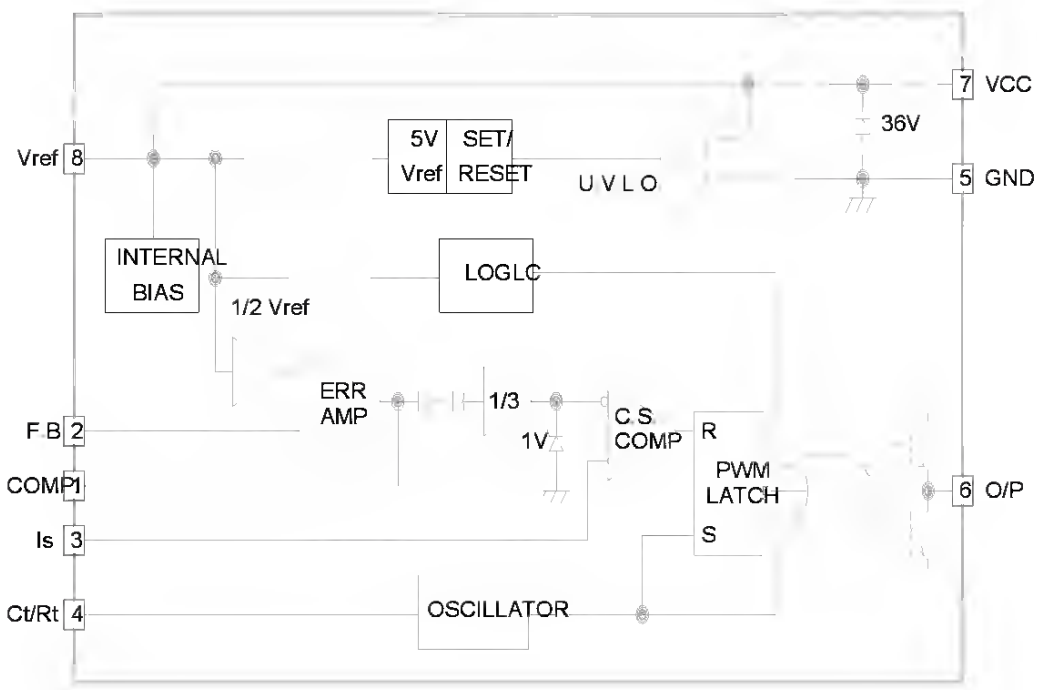


IC901 3842



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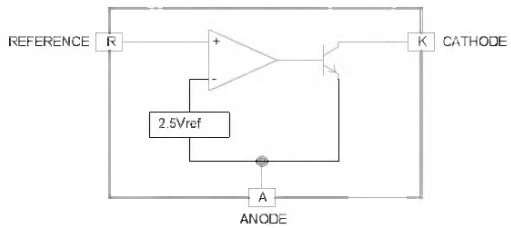
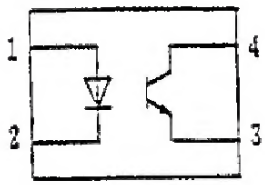
IC902 TL431

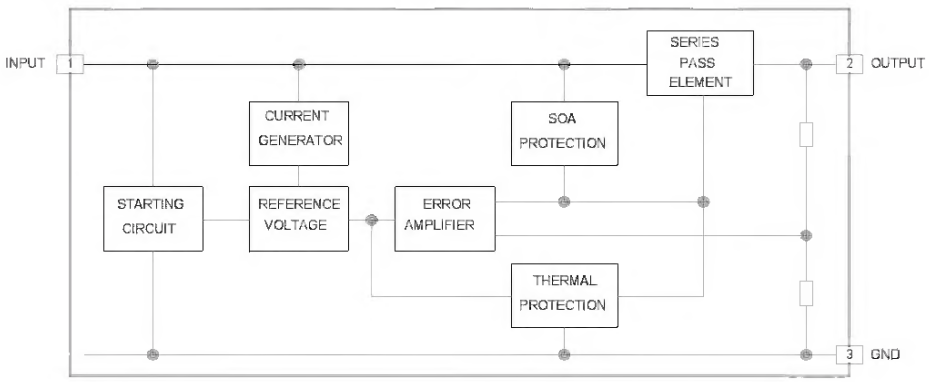


IC903 PC123/SFH615

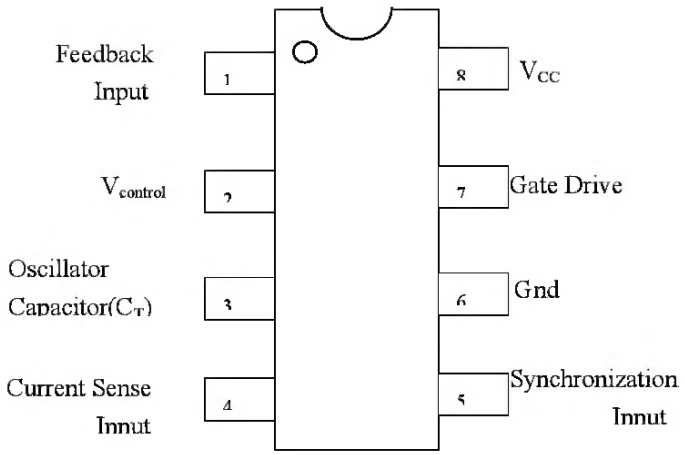


IC904

LM7812



IC906 MC33260



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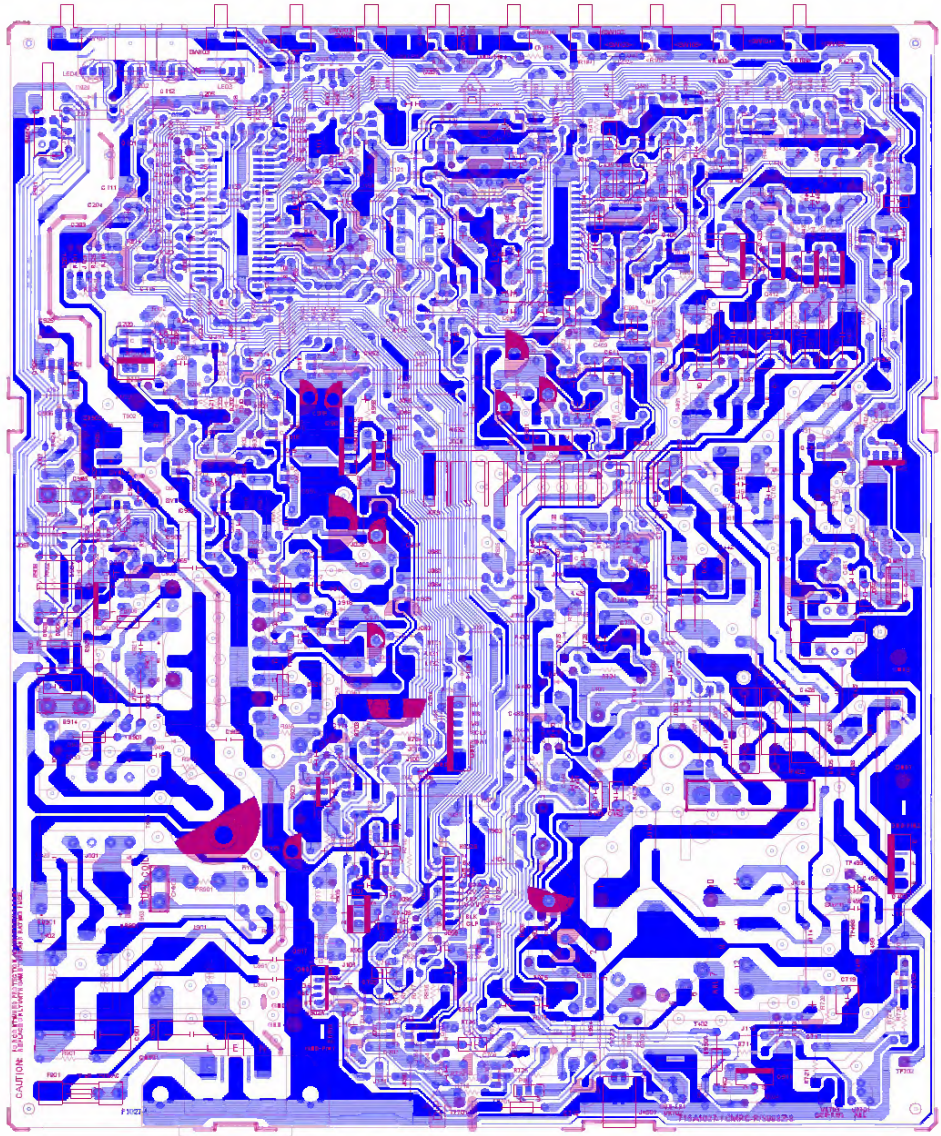
11 PCB LAYOUT

11-1 MAIN PCB LAYOUT



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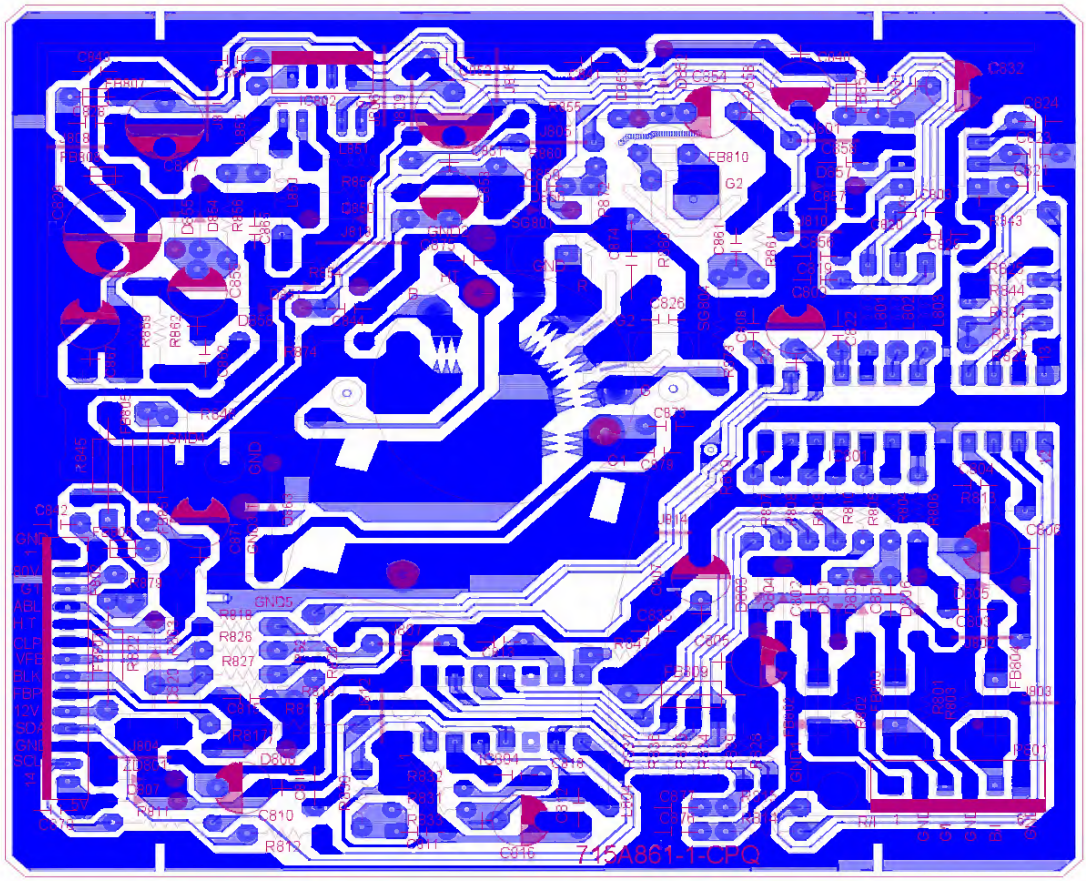
11-2 CRT BOARD LAYOUT



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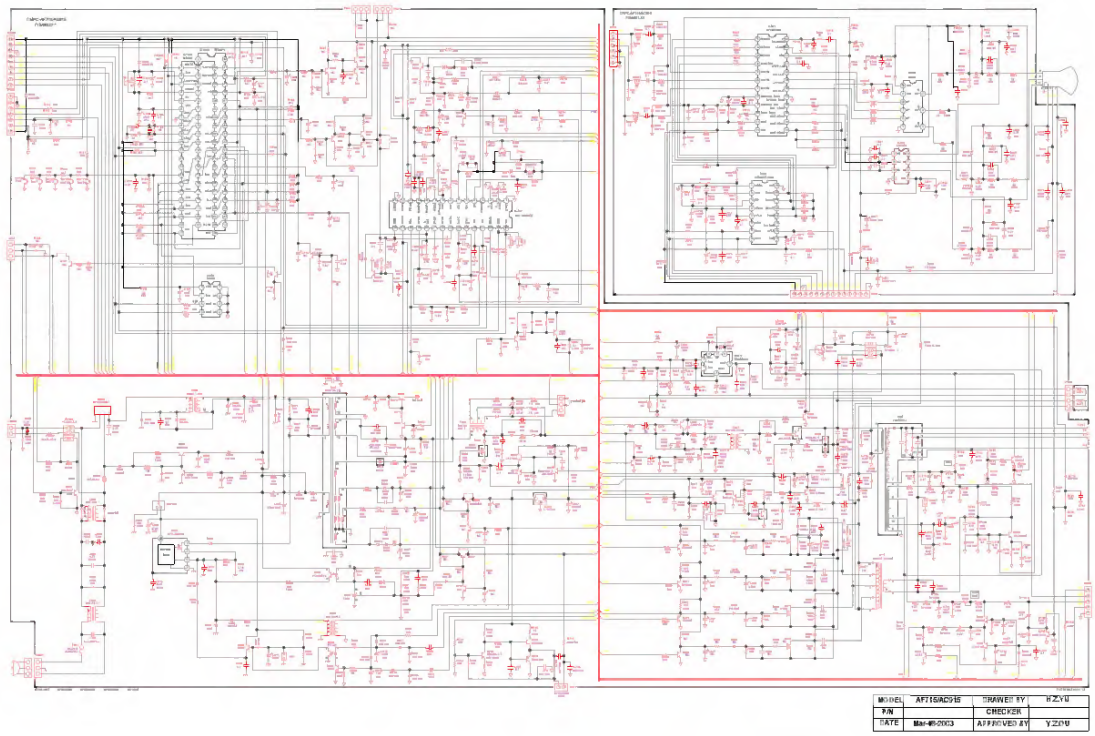
12 SCHEMATIC DIAGRAM



MODEL	AFTSIACD1S	DRAWED BY	H.ZUM
P/N		CHECKER	
DATE	Mar-05-2003	APPROVED BY	Y.ZENG

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